

Schools and School Houses



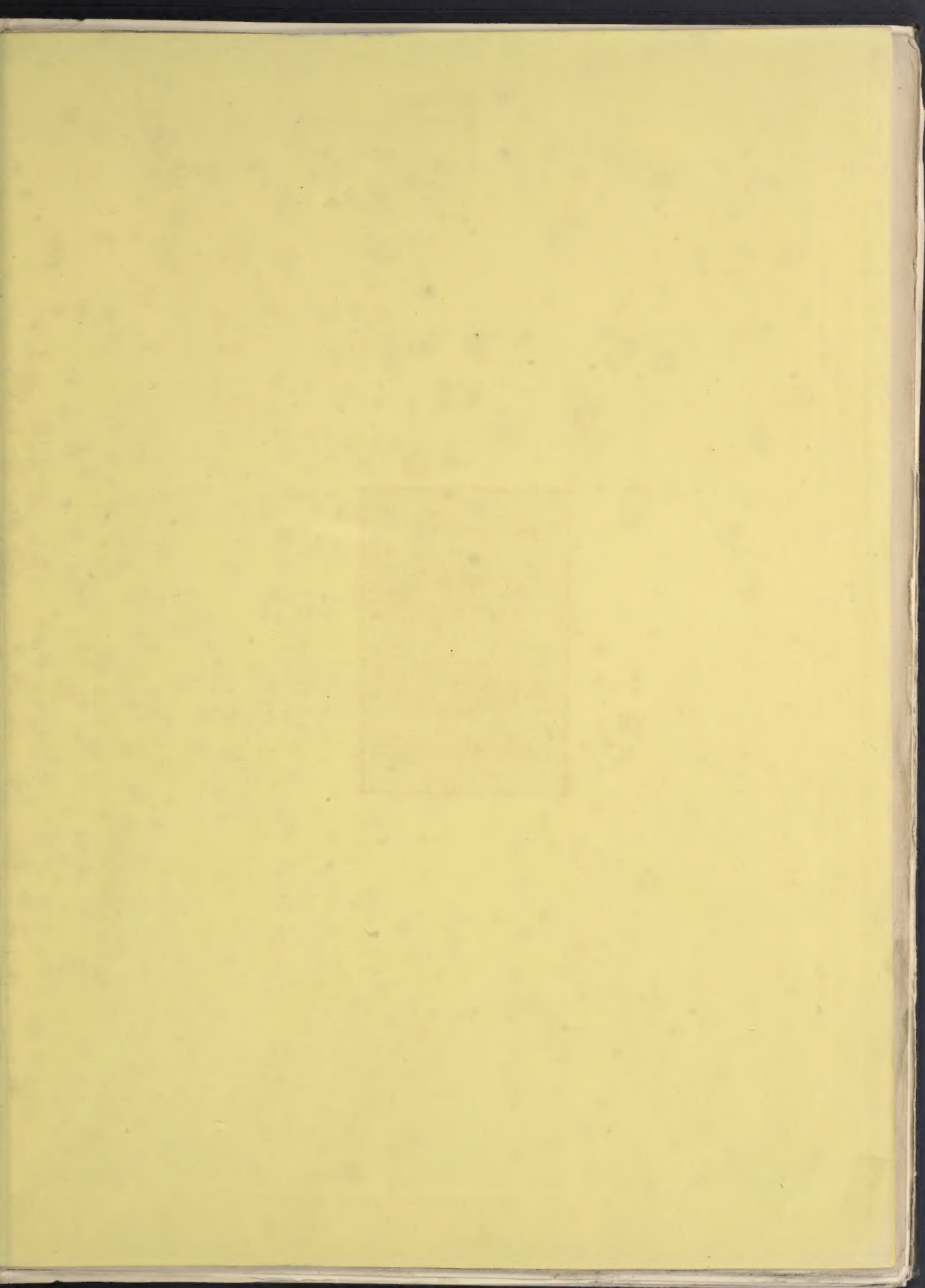
For Rural Parishes.

By Joseph Clarke.





*Earl Cornwallis*



WEB(603)

Gothic

14947/c[cc]

934/08/-/-





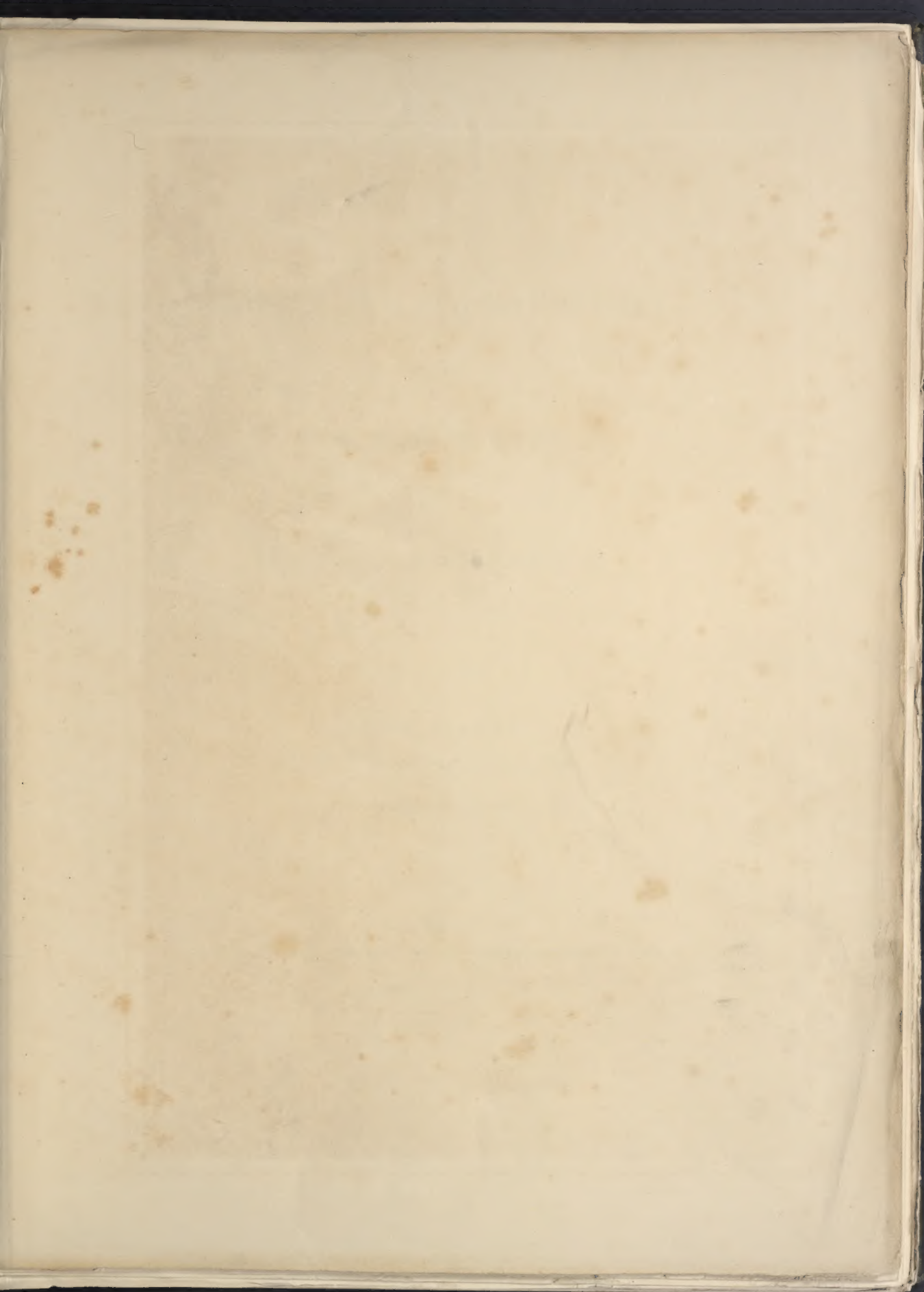




J. P. Johnson, 3 Warwick St.

J. Clarke, Architect

N. W. VIEW OF LEIGH SCHOOLS, ESSEX.









# SCHOOLS AND SCHOOL HOUSES:

A SERIES OF

**Views, Plans, and Details,**

FOR

## RURAL PARISHES.

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BY

**JOSEPH CLARKE,**

ARCHITECT TO THE DIOCESAN BOARDS OF EDUCATION

OF

CANTERBURY, ROCHESTER, AND OXFORD.

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LONDON:

JOSEPH MASTERS, 78, NEW BOND STREET; GEORGE BELL, FLEET STREET;

AND

J. H. PARKER, OXFORD.

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1852.





TO THE  
RIGHT HONOURABLE AND MOST REVEREND  
JOHN BIRD SUMNER, D.D.,  
LORD ARCHBISHOP OF CANTERBURY;

THE RIGHT HONOURABLE AND RIGHT REVEREND  
GEORGE MURRAY, D.D.,  
LORD BISHOP OF ROCHESTER;

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THE RIGHT HONOURABLE AND RIGHT REVEREND  
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THIS WORK

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## INTRODUCTION.

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THE Building of a School in a Rural Parish is a matter of considerable moment; and when, whether from the personal exertions of the Clergyman, or through some influential parishioner, this is effected, there is much to be done—the position and nature of the site, with regard to the population—the aspect—the drainage—warming—ventilating—the arrangement of the plan,\* and many other matters of essential consequence, affecting not so much present circumstances as those of time to come, have all to be fully considered: these are often overlooked, and a building erected suited only to such general ideas as first presented themselves; and which, after a very few years, are found to have been too hastily acted on. How true this is, may be seen in the unsuitable structures so frequently found in use as Schools. The very feelings which prompted their founders, with the best intentions, to attempt something that should denote their use and intention, is often the cause of their failure. The attempt to substitute an ephemeral show of cheap ornament, at the sacrifice of what is actually necessary to sound construction and efficient arrangement, in the introduction of inferior materials, in imitation of those of greater value, has produced a false and unreal system, which is as much to be deprecated in the building of a School as in a Church. Everything ought to be real—truth should be taught as well in practice as in theory—and the child, who learns the first rudiments of his Christian walk from the mouth of his schoolmaster, ought to feel it has been carried out in the place where he is taught; the senses should not be deceived by a false and unmeaning show, which in time is sure to throw off the disguise.

The Committee of Council, in their Minutes of 1840, unfortunately gave a series of plans, recommended as models.† The building of Schools was then but very little attended to; and these designs, unsuitable in every way, became for many years the staple. A marked improvement, however, of late, has

\* See Plates, Nos. 26 and 27.

† These Plans are set aside by the Minutes of Council of 1851.

#### INTRODUCTION.

taken place, and School Buildings are now looked on with far more interest, and a desire is shown to mark their use by consistency of design and arrangement, coupled with an evident desire to make them, to a certain extent, ornamental as well as useful.

In erecting a School, the promoters should, after first meeting every local difficulty, see that the site is suitable for building on. It often happens this is given; but sometimes the liberality intended, becomes nugatory, from its position with regard to the population. It is either too uneven—perhaps a piece of Common or Waste Land—or the fencing, drainage, foundations, roads, must be formed at a great expense—or it may be difficult to obtain water; so that it is found, when too late, it would have been cheaper to have purchased a site, with, perhaps, a choice of locality, than to have accepted the gift. In many cases this is different; still, whenever a School is to be built, it becomes of essential consequence to determine where it should be. The plan should always be formed to the *site*, and reference had to local materials; the design of the school, again, should conform to the materials. Brick and stone each require their separate uses, and so their several applications. Every point should be well considered separately. The best position for the School-room is to the North and East; the desks should be placed to a North light, and, if possible, the classes formed to the East; at the same time, the entrances should always be to the South or South-east. The living rooms of the School-house should face the South, or a little to the East; but, if possible, the bed-rooms to the East or South. All close corners and projections should be avoided on the North side of the buildings, and great care taken to drain the walls, more particularly on this side, and the water carried to a distance. It is too common to place the necessary outbuilding and cesspools close to the School: if the site is very much cramped, this cannot, in some cases, be avoided; but, in the country, this is seldom the case, and it is impossible to tell the injury arising from this system. In selecting materials, where a choice can be had, it seems, as an invariable rule, that the best are always found in the oldest buildings; and the Parish Church will generally furnish this information. If stone is used, the dimensions usually adopted for brickwork must not be used, and *vice versa*. Where brick is used, sound and proper bond is necessary, and on no account must the walls be less than one brick and a half thick; and even with this thickness it too often happens that the bricks or the mortar are so bad as to offer no resistance to the wet; and in a short time the walls become rotten and decayed. In stone or flint work the walls should be at least one-fourth thicker



#### INTRODUCTION.

than in brick, but this must depend a great deal on the nature of the stone: no cement should be used to bond in the courses; and with these materials it is necessary to use more care, and to allow some time in building. All inner walls, particularly to the South or South-west, should be lined inside with brick, which is better than battening. In the construction of a building, by the proper arrangement and disposition of materials, a saving is often gained by those whose knowledge is the result of experience; and they are enabled, at the same cost, to erect a more significant and extensive structure than would seem possible for the outlay. The fact is now happily established—that taste and real art go hand in hand with true economy; it need not any longer be deemed a ruinous expense to attempt to give to our Village Schools that character and association which so naturally belongs to them. Everything should be plainly but suitably constructed.

In woodwork, the gift of green timber should be avoided; rather let it be sold, and invested in sound Memel timber. If well-seasoned oak can be obtained, it is preferable to deal, but not where it is cut in the same spring, or less than three or five years old; but one year of English winter felled oak, before the spring sap rises, is worth years of spring-cut oak, in which every fibre rives from the emptying of the sap arteries, and is so weakened in the grain as to twist, crack, and warp, more than almost any other of our native timber. Let all timbers be large enough to be morticed, and not halved, or nailed side to side, depending on their own cohesion. Floors require ventilation under, but not through opposite walls: if possible, the openings should be on one side to the external atmosphere, and on the other inside the building. The floor-boards should be grooved, and tongued with oak tongues, but not with metal. A low skirting should always run round all the rooms. For the sake of ventilation—it need not be said for appearance—as well as sound, all roofs should be of a high pitch, and open. Boarding is better than plastering under the tiles or slates; but great care must be used, if boarding cannot be afforded, in not plastering to the tile lathes or battens. For the covering of roofs, much must depend on the locality. If tiles can be had, they make the most picturesque appearance. It often happens that old tiles are difficult to procure, and new tiles are so bright as to be unpleasing; but, by using a solution of manganese, into which the tiles should be dipped before placing in the kiln, this is quite obviated. Great care is necessary in securing the ridge and hip tiles; and the valley tiles require much care in laying. The joiners' work should be of the plainest description, but framed with great care; the windows should have

#### INTRODUCTION.

window-boards, and lined round, when these cannot be used; and where angles occur, these should be protected by wood beads rather than plastered.

Warming and ventilating are most important matters, and ought to be very carefully attended to. Nature must not be too much influenced by the theories of art. Schools for country children require, perhaps, more in the way of pure ventilation than in the introduction of heat: in this respect they differ widely from the requirements necessary to be attended to in schools for the Manufacturing Districts; and therefore a pure and dry atmosphere should be kept up, and the school not too much heated in winter.

It is desirable that good and separate Playgrounds should be provided for the children, and, in some instances, Gardens have been formed, and seem to answer very well—being let to the best children, to be cultivated by them, as a reward. The Master should have as large a Garden as can be spared; and, if possible, a patch round his house, which, if nicely cultivated, adds cheerfulness to the whole structure.

The accompanying Plans of Schools, built within the last few years, have been selected as containing the requirements of most Villages; from the simple school-room built at Monk's Horton, in Kent, at an expense of £120, to the almost collegiate arrangement of the schools at Leigh, in Essex, erected by the private munificence of the Bishop of Moray and Ross. To each school a short statement is annexed, affording a general description, with the cost, &c.; and the plans comprise, in addition to a perspective view, all the details of construction. As an Addenda, two separate Plates are given of the forms and fittings of school-rooms, contained in a memorandum of the Committee of Council on Education,\* recently issued, and which will afford some useful information.

13, STRATFORD PLACE, OXFORD STREET,  
*May, 1852.*

\* Entitled "Mem. respecting the organization of Schools, in parallel groups of benches and desks, 1851."



### MONKS HORTON—KENT.

---

This School was built to supply the wants of a poor and small population. The Parish had very recently contributed largely towards the restoration of the church, and no help could be expected from the Parishioners; and the landowners are all non-resident;—it was therefore necessary to build in the most economical manner.

The school is in one room, for 50 children. It is built of rag-stone, with Caen-stone dressings, and covered with old tiles; the fire-place is brick. A pent is constructed over the entrance, to screen it from the rain and wind. The flooring is what is called a threshing floor, composed of chalk, floated, in consecutive layers, on a hard substratum, and finished with a coat of slacked lime and loam. It becomes exceedingly hard in time, and bears a smooth surface. There is a small bell-cot at one end of the roof,—the bell being rung from the inside. The timbers inside are left exposed, and stained.

These schools were aided by the Committee of Council,—the National Society then having no funds in hand; and the contract for the building, complete, with the out-buildings, was £120.







MONKS HORTON SCHOOLS, KENT.



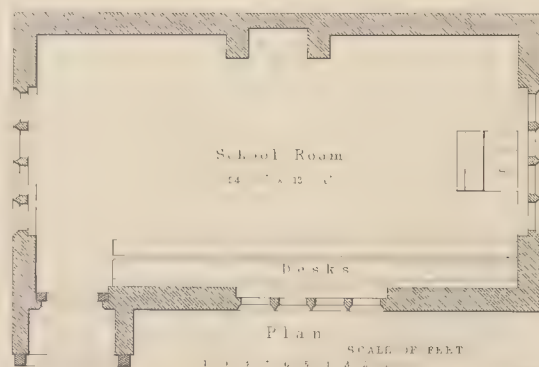
Perspective View



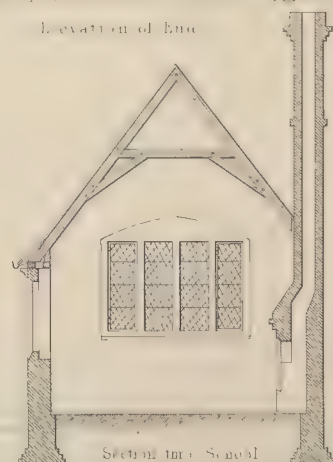
Evaluation of Sado



Evaluation of time



Plan



Section 100: Symbols

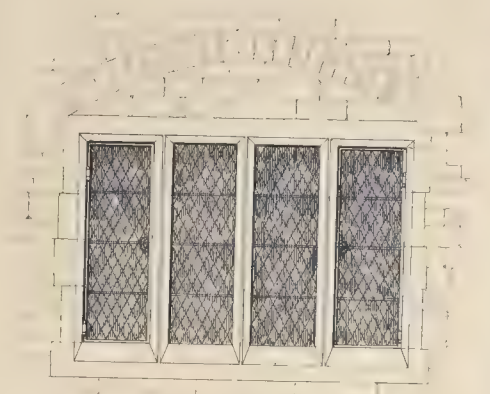
C. ARKE ARCHITECTS







MONK'S HORTON SCHOOLS, KENT.



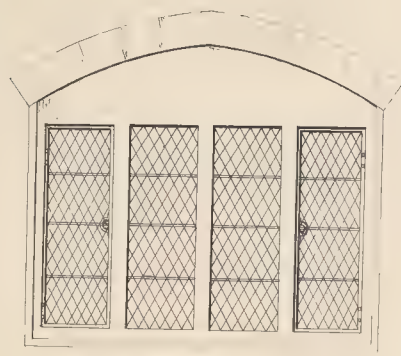
Windows Outside  
Casements to open in Light.



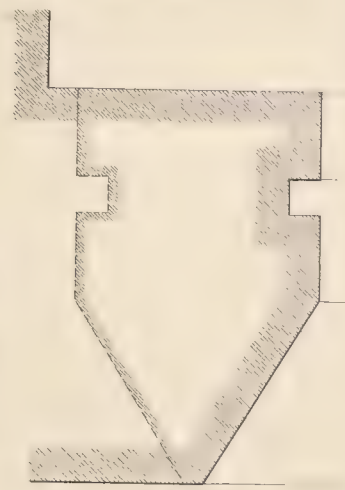
Plan of Windows



Section



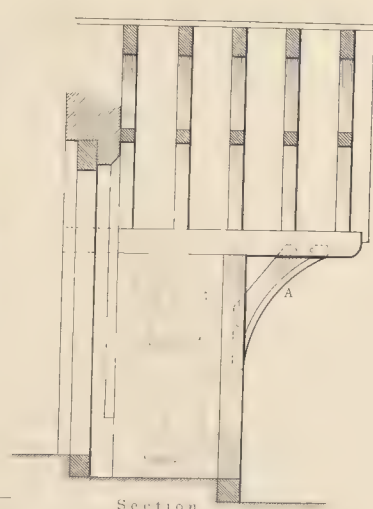
Windows Inside



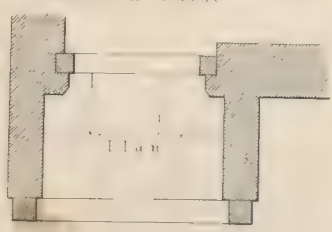
Stone Mullion  
1/2 full size



Elevation of Porch



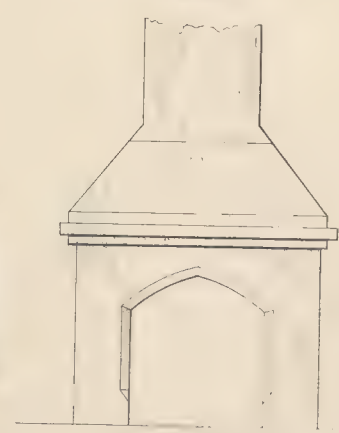
Section



Plan

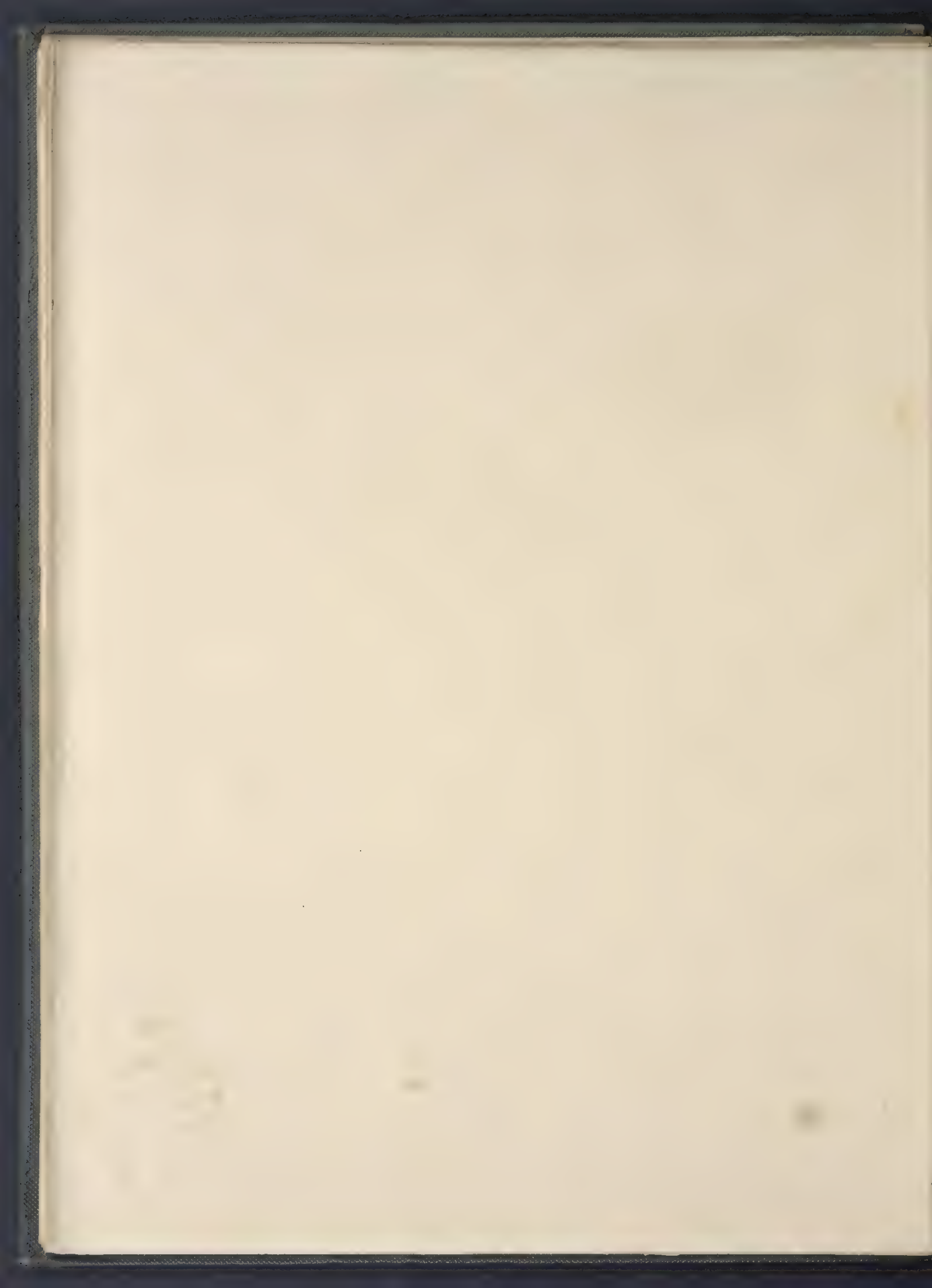


Section at A  
1/2 full size



Fireplace

SCALE TO DETAILS



## LYDD—KENT.

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Lydd, in Romney Marsh, is one of the old Cinque Ports, and though now some miles from the sea retains all its original privileges and charters;—there is, however, little left of its former state beyond the fine and interesting church, which rises majestically from the midst of the houses, and may be seen for miles over the level marsh lands.

Till recently, the provisions for the education of the poor were very limited; and the only schoolhouse was a wretched structure of wood, in such a state of decay, that the wind and the rain found easy access through it. The endowment was too small to allow of an efficient Master; and the whole thing, in consequence, was going to utter ruin; and, after becoming entirely deserted, was closed. The Vicar, and some of the gentlemen of the place, interested themselves, and, after very great labor and exertion, raised—with the assistance of the Committee of Council, the National Society, and the Diocesan Board of Education—means sufficient to erect a large school, capable of containing, in two rooms, 200 children, with a residence for a Master and Mistress. The buildings being placed on an open site, exposed in every direction to the influence of the atmosphere, it was necessary great care should be used in their erection, and in protecting and sheltering them as much as possible. The plan, it will be seen in the accompanying Plans, contemplates a square, enclosed on three sides, opening to the south; but the Infant school, for the present, is omitted: this, when added, will make the enclosure a convenient and sheltered playground for the children; whilst the principle faces of the buildings are turned from the sea and scorching aspects in summer.

The material used in the construction is the blue rag-stone, from the neighbourhood of Rye, with Caen stone dressings and quoins: the cross-walls are brick;—the stone walls are well grouted and filled in with fine concrete instead of mortar, formed of lime and the small shingle found on the spot; this, in time, binds and becomes almost as hard as the rock itself. This method of building will be found, in similar cases, and where thick walls are used, to be very much better than the usual plan of laying the inner stones



LYDD—KENT.

in mortar. Mortar should be used for the beds, on the outside faces, and the joints struck and pointed in blue lias cement. The roofs are open, shewing the timbers; the floors are of wood; but from the exceedingly dry nature of the soil, do not require much ventilation under. A plan adopted in these schools, for the children's caps, &c., is by having a large hoop suspended from the roofs of each schoolroom, to which they are attached, and then raised and lowered at pleasure. It is desirable, if possible, to place the fire-places in similarly-exposed situations in the middle of the room, and not in the gable walls; by which means a more even draft is secured, and the heat better maintained.

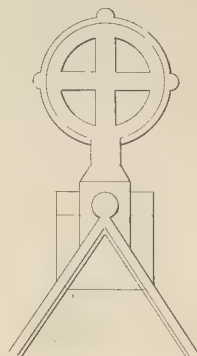
The cost of these schools (with some slight advantage arising from the use of the old materials from the former school) amounted to about £750.



LYDD SCHOOLS, KENT.



Front Elevation of Masters House

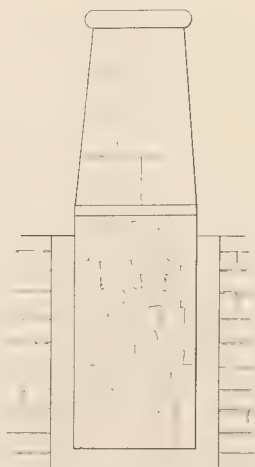


Detail of Cross

$\frac{1}{2}$  in Scale



Perspective View



Detail of Chimney

$\frac{1}{2}$  in Scale



Back Elevation of Masters House

0 10 20 30 FEET

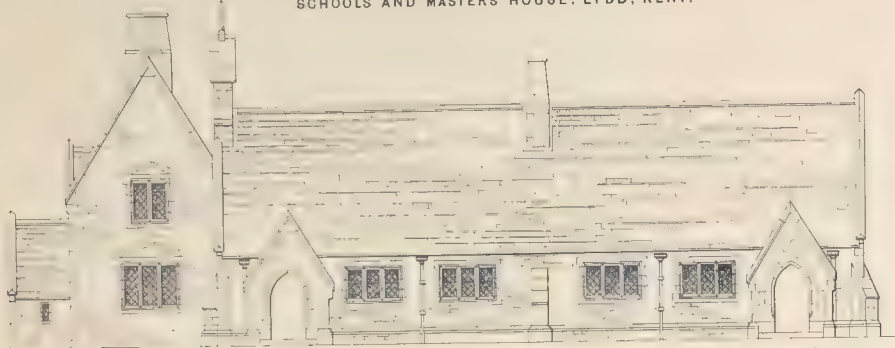
J. CLARKE ARCHT



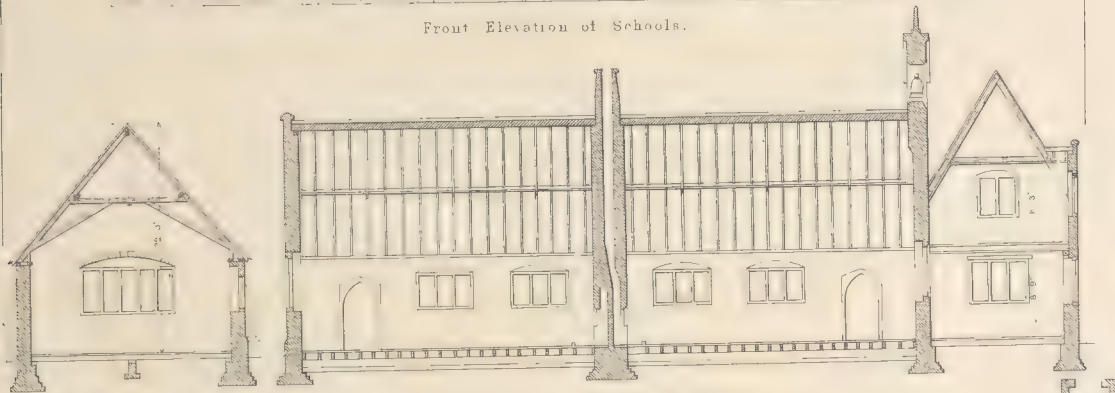




SCHOOLS AND MASTERS HOUSE, LYDD, KENT.

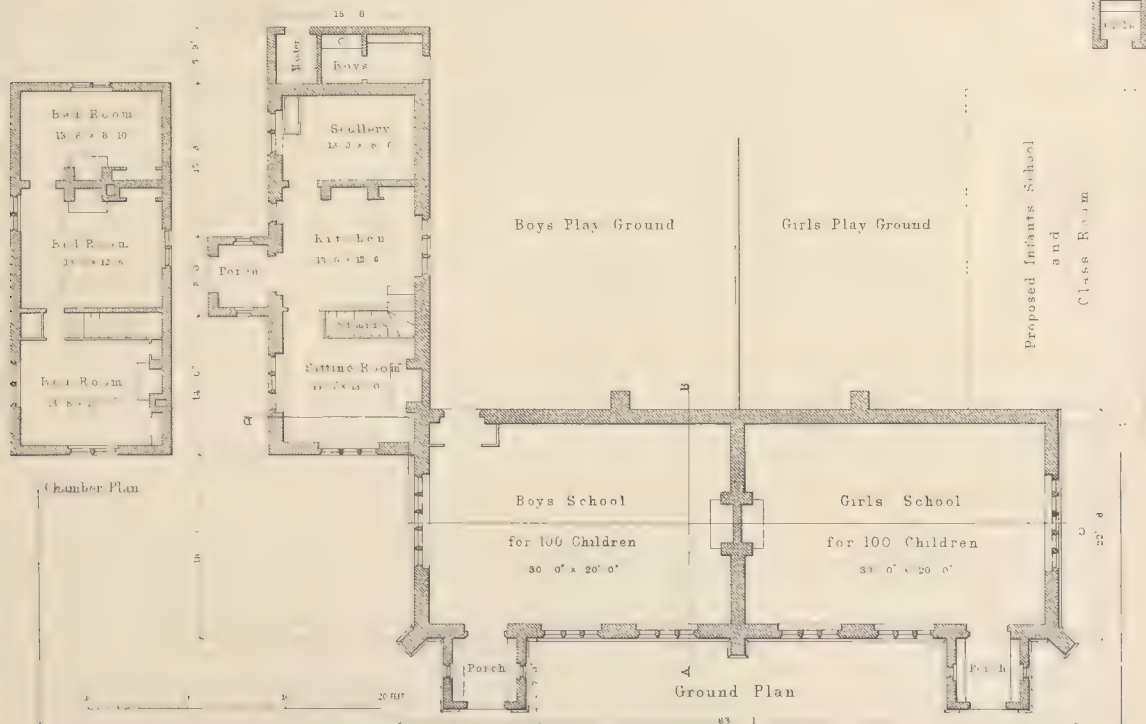


Front Elevation of Schools.



Section on A B

Section on C D







### LITTLE BENTLEY—ESSEX.

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This is one of the small Parishes common in the County, the population being about 450. It is built as a mixed school, for between 70 and 80 children in one room, divided by a curtain. There is a small room behind used as a class-room, and for the children's cloaks, &c.

This school was erected by the Rector, with the aid of grants from the Committee of Council—the National Society—and the Diocesan Board of Education. From the nature of the local materials, it was built entirely of brick,—the copings, water tables, plinths, and jambs of doors and windows, being set in cement. The window-frames are of wood. The roofs are open, and covered with old tiles. There are open fire-places at the ends of the room; and a separate flue is carried up in each stack, as an extracting and ventilating flue, opening into the room, but protected with stout perforated zinc. The contract for these Schools was taken by local tradespeople, and was very well carried out. The outlay on the schools, including the outbuildings, drainage, &c., was about £350.



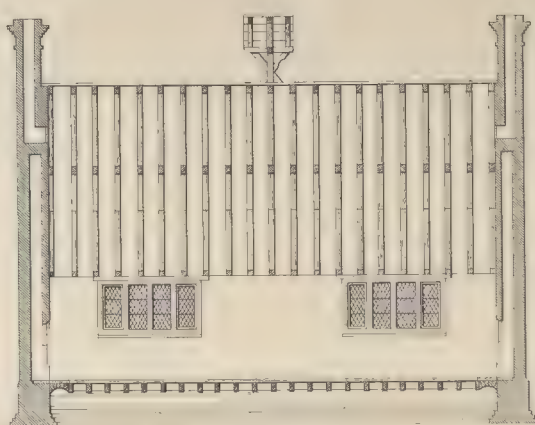




LITTLE BENTLEY SCHOOLS, ESSEX



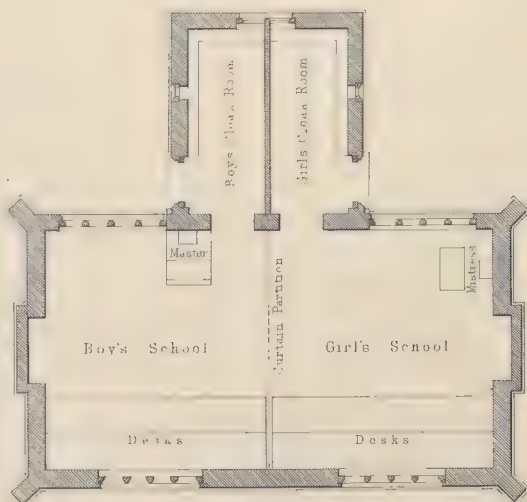
Back Elevation



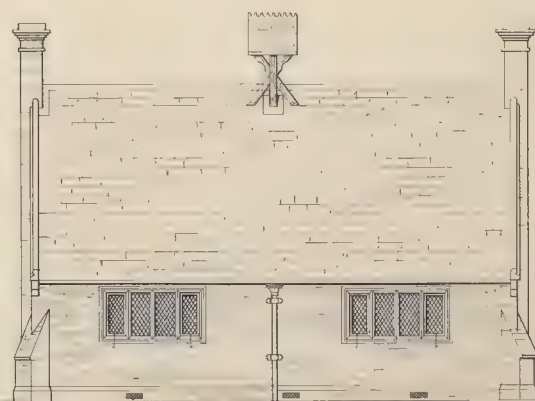
Longitudinal Section



Perspective View



Plan



Side Elevation.

SCALE OF FEET  
10 9 8 7 6 5 4 3 2 1 0 10 20

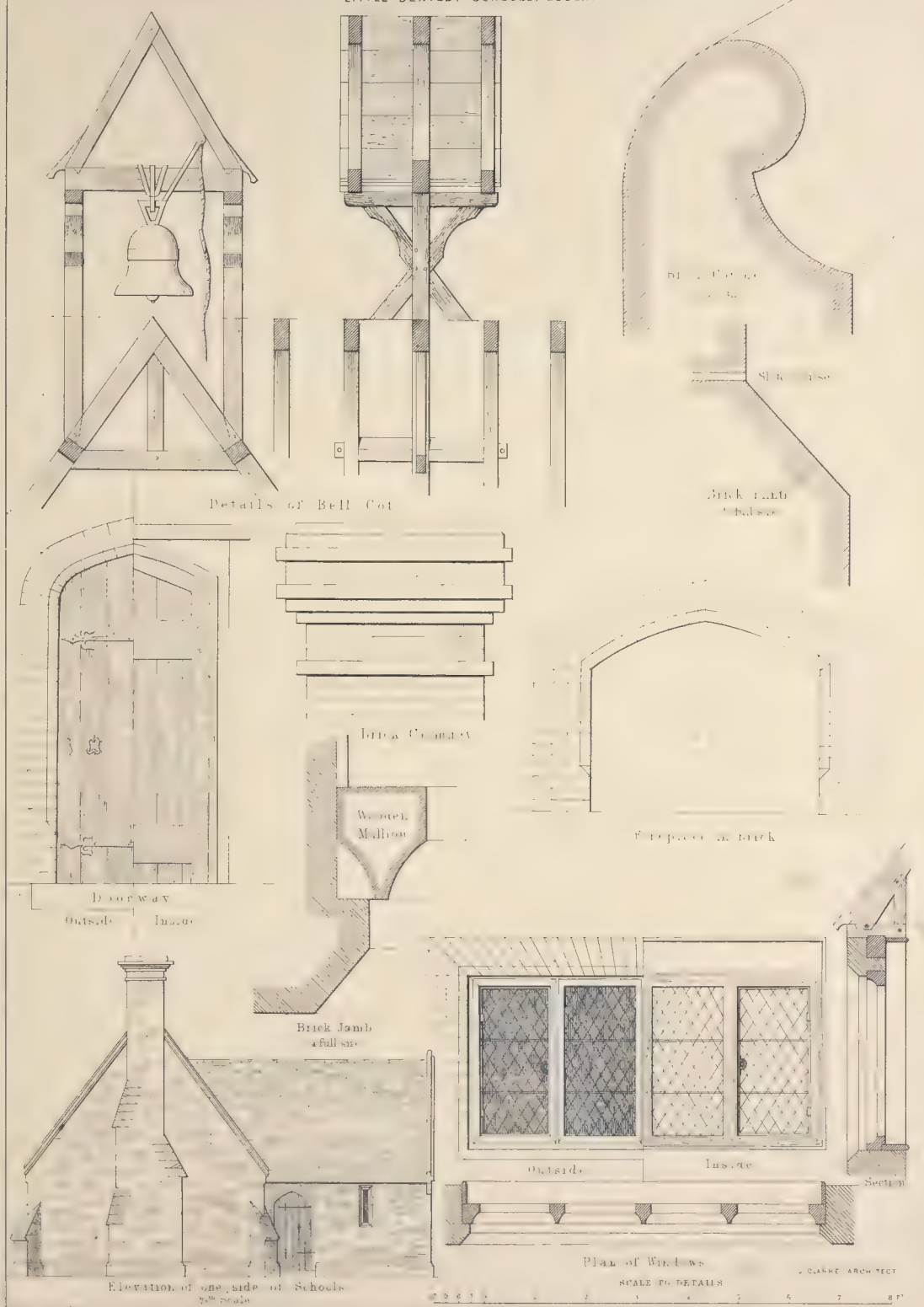
J CLARKE ARCHT. ECT







LITTLE BENTLEY SCHOOLS, ESSEX.





### GREAT COGGERSHALL—ESSEX.

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The accompanying Plates (Nos. 7 and 8), shew the arrangement of a double school-house, built at Great Coggershall, in Essex. It often happens, the expense of erecting detached schoolhouses cannot be afforded; and a double cottage then offers, at much less expense, the accommodation required where it is necessary to appoint a distinct Master and Mistress.

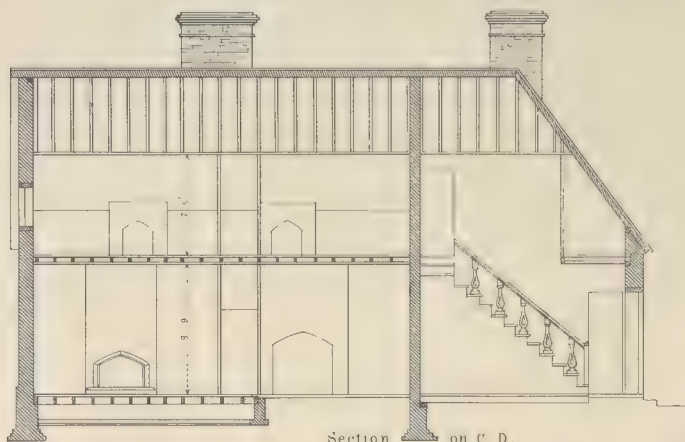
The accommodation consists of a living room and parlor, with a kitchen attached; from which is an open staircase, with a cupboard under, to the bedrooms above. The plan comprises five bedrooms; three of which can be given to either house, as circumstances require. The materials are entirely brick;—the window-frames and door-cases of wood. The roofs are covered with patent tiles, which give relief, and a pleasing character to the building. The outbuildings are arranged behind, and a good garden is attached to each resident. The contracts were taken by a respectable builder in the town, and, exclusive of the tiles, the amount was under £400.



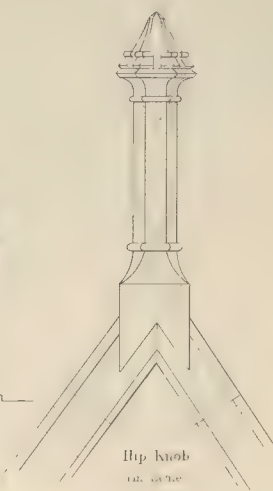




DOUBLE SCHOOL HOUSE, COGGERSHALL, ESSEX.



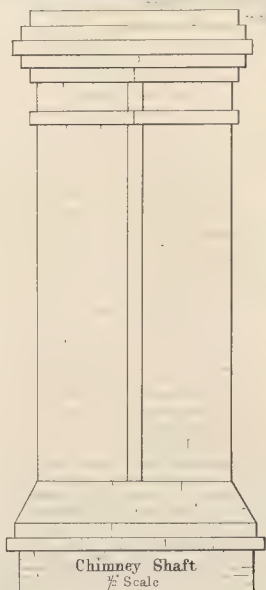
Section on C. D.



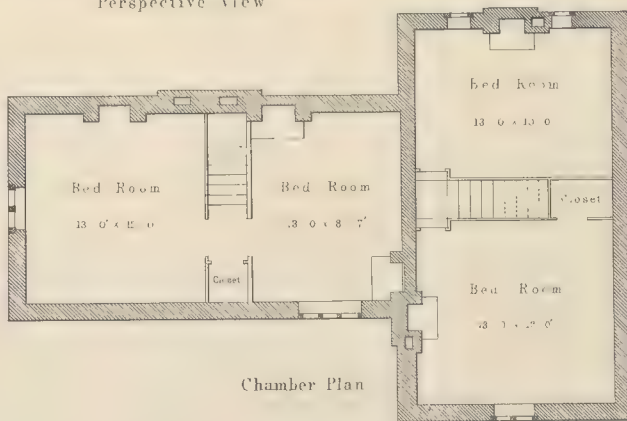
Hip knob  
alt. of 10 ft.



Perspective View



Chimney Shaft  
1/2 Scale



Chamber Plan

10 5 0 10 20 FEET

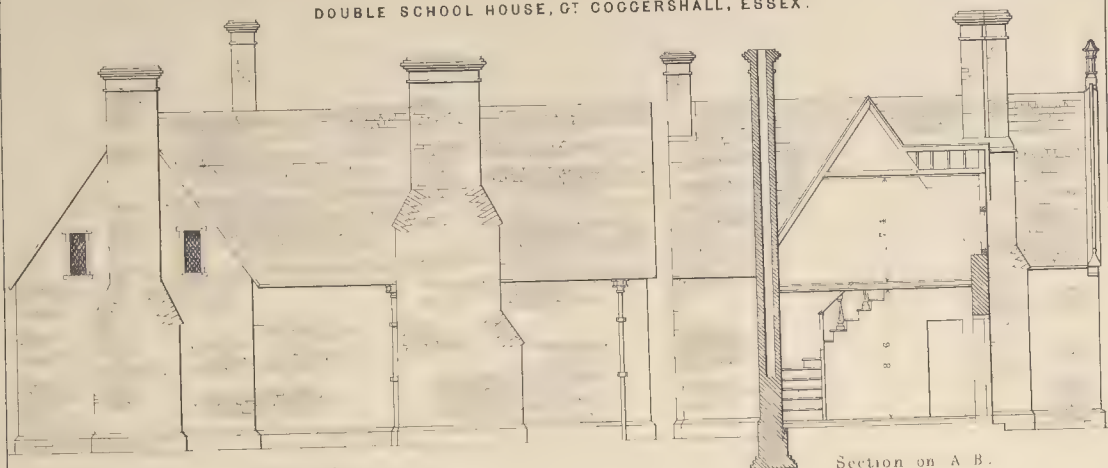
J. CLARKE ARCHT







DOUBLE SCHOOL HOUSE, ST COGGERSHALL, ESSEX.



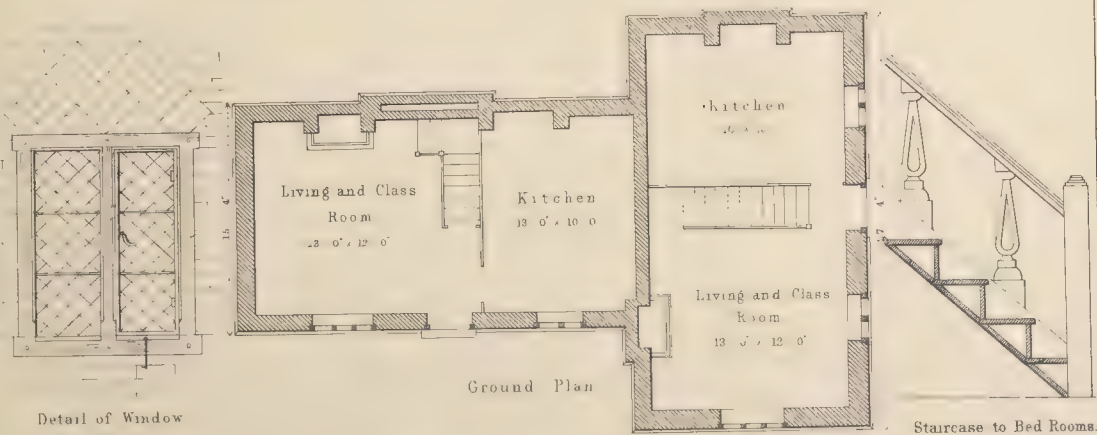
Back Elevation

Section on A B.



Front Elevation.

East Elevation.



Detail of Window  
7/8 in Scale

Ground Plan

Staircase to Bed Rooms.  
7/8 in Scale

0 10 20 FEET

J CLARKE ARCHT



## CLIFTON HAMPDEN.

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The well known position of Clifton Hampden, from its height above the river Thames, makes it one of the loveliest spots in Oxfordshire. A few years since the church was very beautifully restored, and a new rectory added.\* More recently the schools have been built, on a natural platform to the north-west of the church; and this pleasing group now forms a most perfect type of our parochial system, as well as a rare example of private munificence.

The schools are well placed, and enjoy every advantage from position, and in the nature of the materials employed. The plan comprises, under one roof, two small schools, divided by a double partition, which forms a passage between them, communicating with the Master's house. These partitions are carried as high as the wall-plates, and can be easily removed, so as to throw the two schools into one room.

The Master's house is more perfect than usual: the covered way behind adds much to the comfort, and makes a pleasing feature; the part over being timber-framed and pargetted. The materials are blue walling stone, from Marcham; with Bath stone dressings for doors, windows, quoins, &c., &c. The timbers are very solid. The open porch is of oak; the roofs are covered with old tiles, and the timbers exposed and stained, as well as all the internal woodwork. The small oriel window, though very simple in construction, gives great character to the house, and at a little cost. Everything was done to render these schools solid and enduring. They are placed on a platform or terrace, formed by an embankment, with steps in the centre; and the space in front, with the slope, being turfed and kept in excellent order, shows the building to great advantage.

The cost of these schools was considerable, and, with the materials found on the estate, amounted to between £700 and £800.

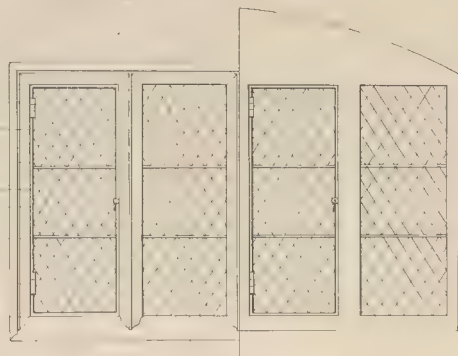
\* By Mr. G. G. Scott, Architect.







SCHOOLS AND MASTERS HOUSE, CLIFTON HAMPDEN, OXFORDSHIRE.

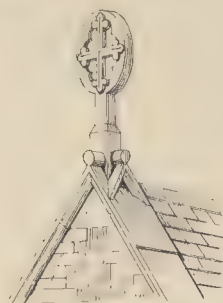
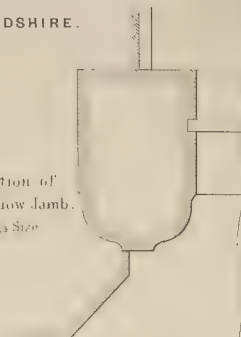


Detail of Window  
Exterior Interior



Section

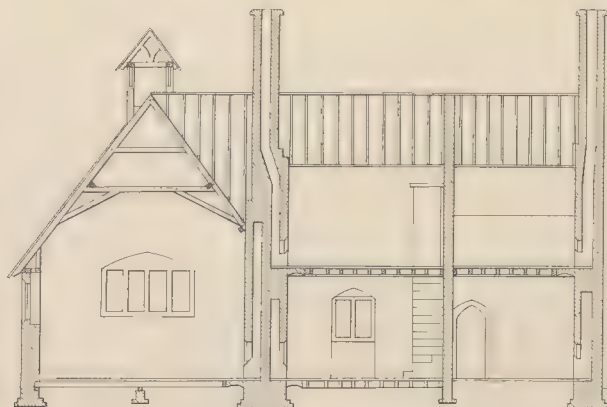
Section of  
Window Jamb.  
1/2 Size



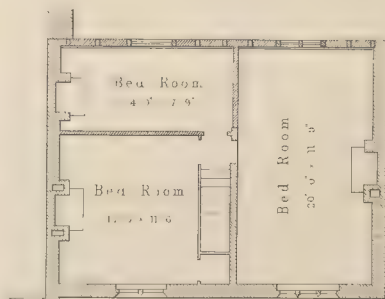
Sketch of Cross on Gable



View of Schools



Section on Line A.B.



Chamber Plan.

0 10 20 30 FEET







SCHOOLS AND MASTERS HOUSE. CLIFTON HAMPDEN, OXFORDSHIRE.

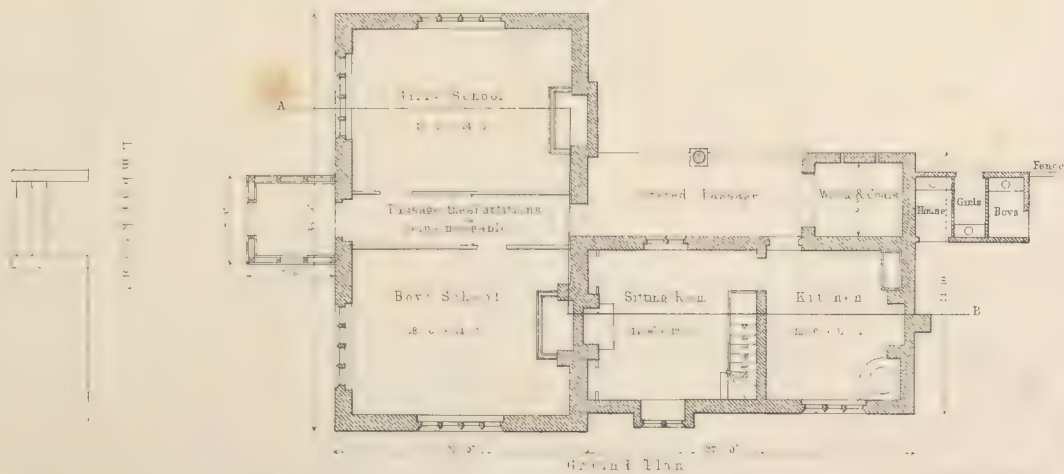


South Elevation



North Elevation

East Elevation



Ground Plan

J. CLARKE ARCHT. & BLDG.



### COOPERSALE—ESSEX.

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These schools were erected by a Lady, for the children of a very scattered parish. They stand alone by the roadside; and, in a few years, when they have lost the glare which the use of red brick always imparts, and the foliage increases, they will fall into their proper place in the surrounding landscape.

Great care was taken in the arrangement of the Plan; the gardens and playgrounds round the buildings in particular. Water is also laid on through pipes from a spring at a considerable distance; and the supply being more than adequate for the purposes of the schools, is preserved for the use of the cottages round.

The arrangement comprises two rooms, for 55 children in each, entered from one porch by separate doors. There are no class rooms, but, in all other respects, the schools and house contain every possible convenience required for a moderate-sized village. The offices and outbuildings are quite detached, and placed at a proper distance; they are parted by brick walls.

These schools are well lighted, and great advantage is gained by adopting the large gable windows in front, extending up into the roof.

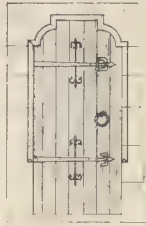
The materials employed are red brick, checquered,—with stone dressings to the windows, doorways, copings, bell-cot, &c., &c. The roofs are covered with old and new tiles, arranged in patterns; the timbers inside are exposed and stained; the walls inside are not plastered, but pointed and colored. Over the doorway of the house is a carved-oak pent; and there are pents, only in deal, to the other doorways at the rear. The barge-board in the gable towards the road is carved in oak, and gives a great finish to this front. The cost of these schools, exclusive of laying on the water, forming the grounds, &c., amounted to £900.







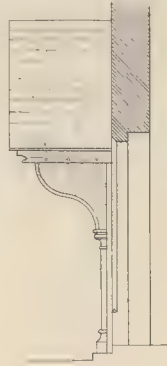
SCHOOLS AND MISTRESS' HOUSE, COOPERSALE, ESSEX.



Door Mistress House  
1/2 scale



Door Mistress House  
1/2 scale



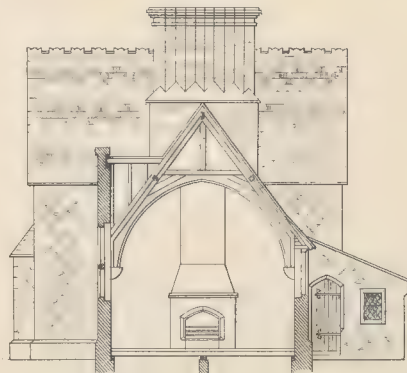
Section



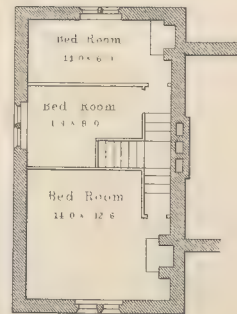
Window Mistress House  
1/2 scale



View of Schools

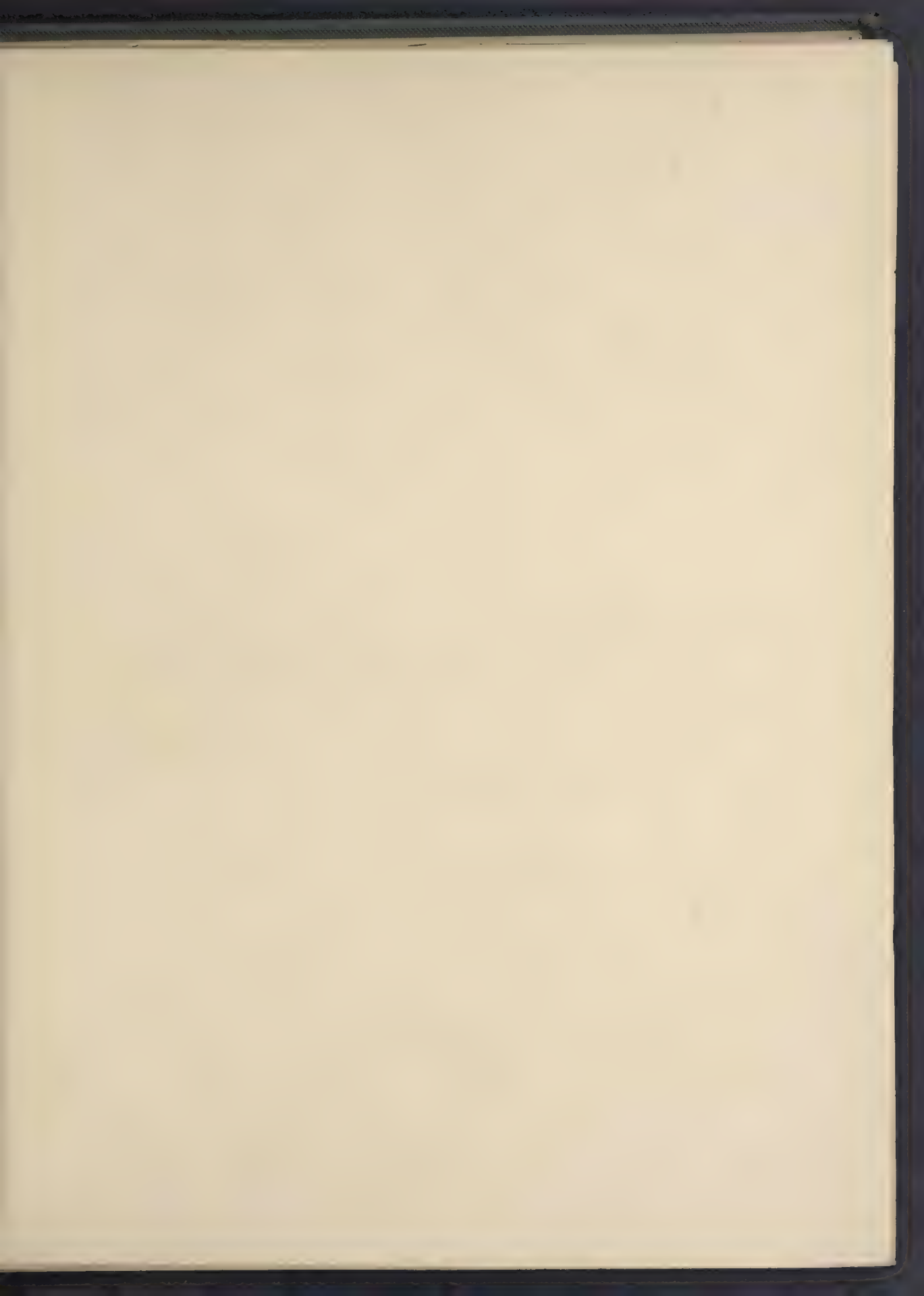


Section on line A B



Chamber Plan

10 20 30 40 50 60 70 80 FEET





## SCHOOLS AND MISTRESS' HOUSE, COOPERSALE, ESSEX.



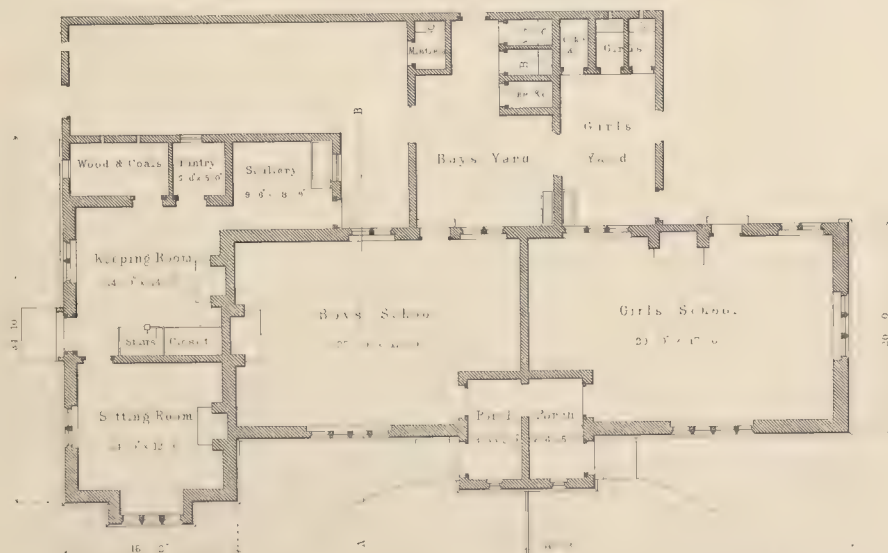
Elevation of Mistress House



East Elevation of Schools



Front Elevation.



Ground Plan

J. CLARKE ARCHT





### WELLESBORO'.—KENT.

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The population of Wellesboro' is fast increasing, as in the parish is now comprised a considerable portion of the large Railway Establishment, formed by the South-Eastern Company, adjoining Ashford ; but as this is placed under the care of a separate Chaplain, it cannot be considered as forming a part of the regular population. The schools previously existing were so confined and inconveniently placed, that the Vicar determined on building a new school and Master's house adjoining the church, and separating the children of the rural population from those employed in the railway manufactory.

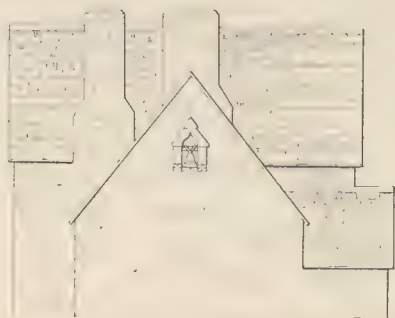
The plan is for a mixed school for seventy children, on the scale originally laid down by the Committee of Council ; but this number is far too many to be taught efficiently. The Master's house is small, containing a living room and kitchen, and with two bedrooms over, one of which was divided in two to meet the government requirement. These schools are solidly built ; but, as the means were small, every unnecessary expense was avoided. The walls are of rag-stone ;—Caen stone was used sparingly in the dressings. To save the expense of a porch, a pent covering was formed over the entrance of the Master's house. The timbers of the roof over the school-room and house are exposed, and all the roofs are covered with old tiles. Ventilation is provided in the end gable through a bell-cot, sunk in the wall, and by a flue in the opposite end of the school. The fencing, draining, &c., were made very complete.

These schools were contracted for by the village builder, and the works were well carried out. The cost was under £500, and Grants were made by the Committee of Council and by the Diocesan Board of Education.





WELLESBORO' SCHOOLS AND MASTER'S HOUSE, KENT.



Back Elevation of Master's House



Back Elevation of School



Perspective View



Front Elevation of School



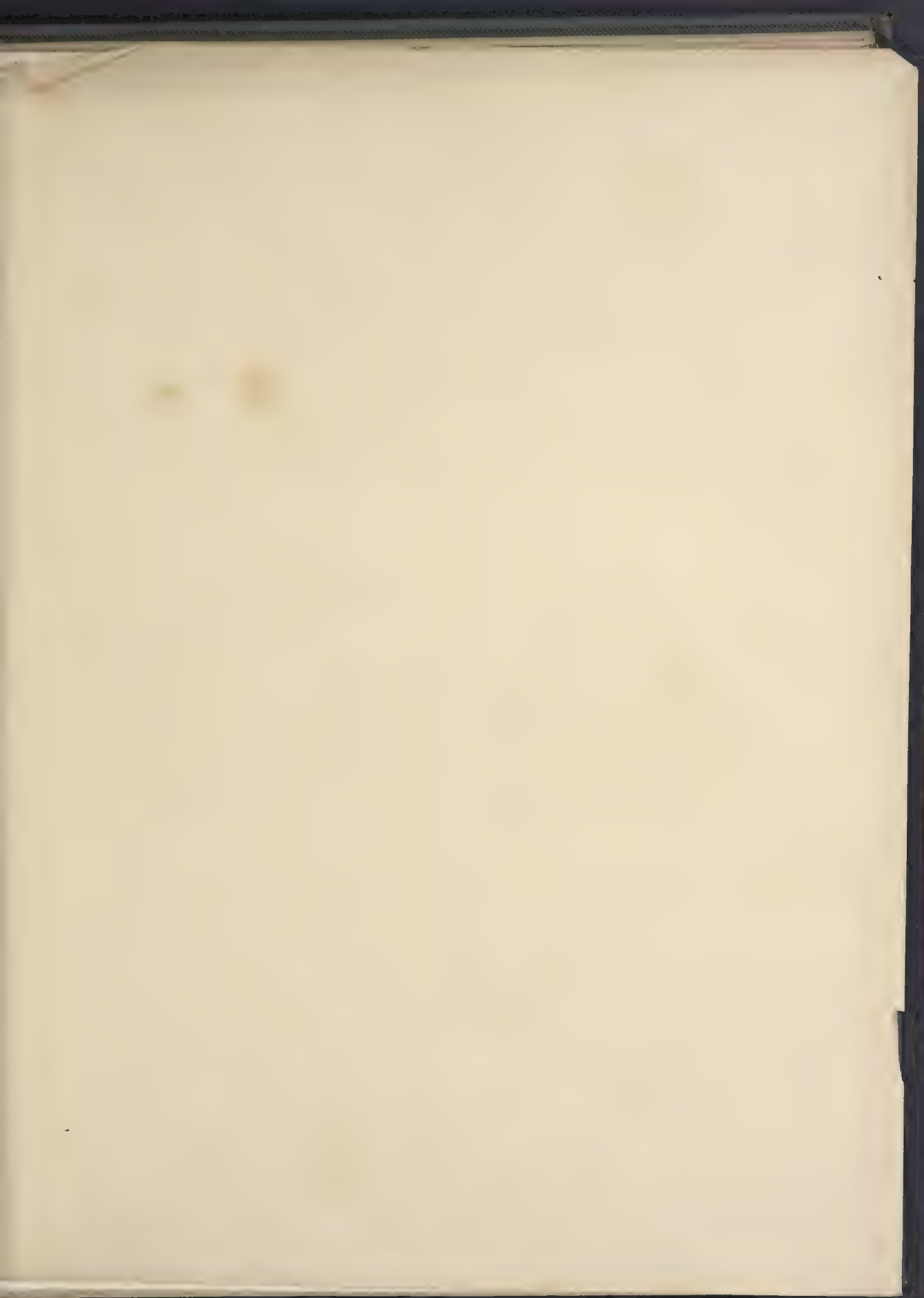
Front Elevation of Master's House

SCALE OF FEET



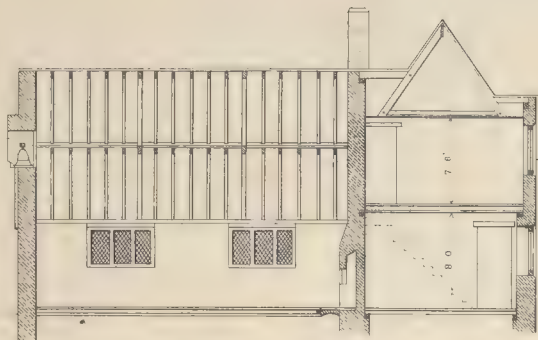
J. CLARKE ARCHT



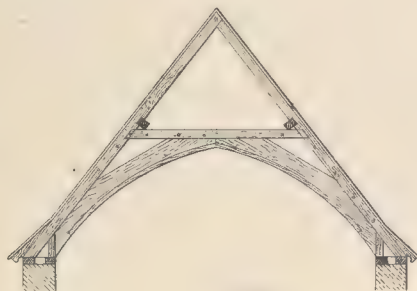




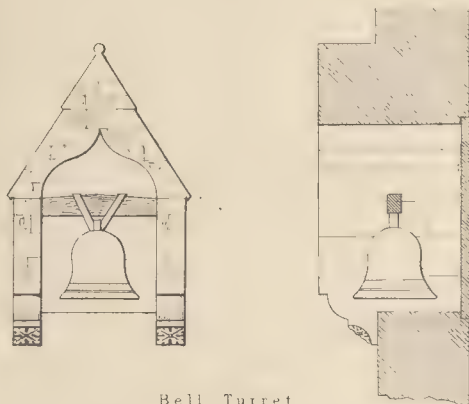
WELLESBORO' SCHOOLS AND MASTER'S HOUSE, KENT



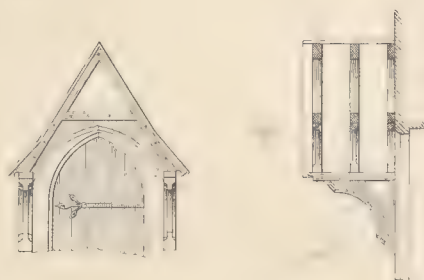
Section through Schools and Masters House



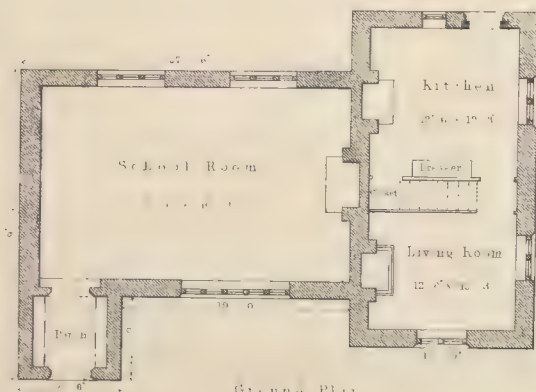
Roof of Schools



Bell Turret

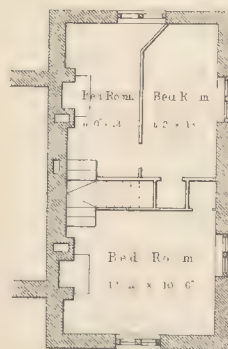


Pent Roof over Door



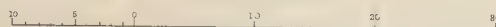
Ground Plan

Masters House



Chamber Plan

SCALE OF FEET



J. CLARKE ARCHT



### BRABOURNE—KENT.

Brabourne is an extensive inlying parish, six miles to the east of Ashford; and, from the existence of camp barracks during the late war, combined with other causes, it had become one of the most degraded agricultural parishes in the county.

The late Sir Edward Knatchbull, in 1847, gave a site for a new school, in addition to a large subscription, besides the gift of stone and timber. It formed a part of a copyhold waste, and had to be enfranchised. As it was in an isolated spot, to be as central as possible to the whole parish, it was desirable the house and school should be convenient and comfortable, as well as a pleasing feature in the very pretty district in which it was placed. The plan consists of one room for 100 children, divided by folding doors: this form was adopted that the school might be available for the vestry and other meetings in the parish; and as this is the only school given shewing the old method of dividing the room by folding or sliding doors, it seems well to remark, that in almost all instances, they fail from the difficulty in working the slides, whether running from below or from above; or the doors when hung on hinges, from their weight, soon get out of order. The entrances to the schoolroom are separate for the boys and girls;—they are commodious, and constructed so as to form a place for the children's caps, bonnets, baskets, &c. The roof is open and boarded: it is ventilated in the gables with glass louvres. The floor is boarded; and at first, the open valvular ventilators were adopted; but these seldom answer, and were done away with. Two ordinary-sized Arnott stoves are found sufficient for heat.

The house, though attached, is distinct from the school; it is small, but found, in its arrangements, to be convenient; and, with the school, was favorably reported on, and recommended by Her Majesty's Inspector of Schools.

The abundance of rag-stone in the neighbourhood, with the gift of the timber, allowed of the works being constructed in a very substantial manner. Fir was used in the interior, and oak for all external framing. Ornamental pargetting was also adopted between the



BRABOURNE-KENT.

spaces, and had a very pleasing effect; but this requires much care and experience in the workmen to carry out well. The space before the Master's house was planted with flowers, and has a very pleasing look. He has besides a large garden for his own occupation.

In addition to Sir Edward Knatchbull's assistance, grants were obtained from the Committee of Council, the National Society, and the Diocesan Board. The Cholmondeley Charity Commissioners also gave £50. It is difficult to calculate the total cost of these schools; but it probably amounted to between £700 and £800.



SCHOOLS AND MASTERS HOUSE, BRABOURNE, KENT.



West Elevation of Schools

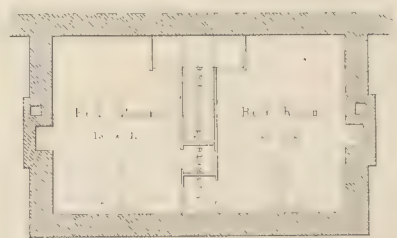
Elevation of Masters House



View of Schools and Masters House



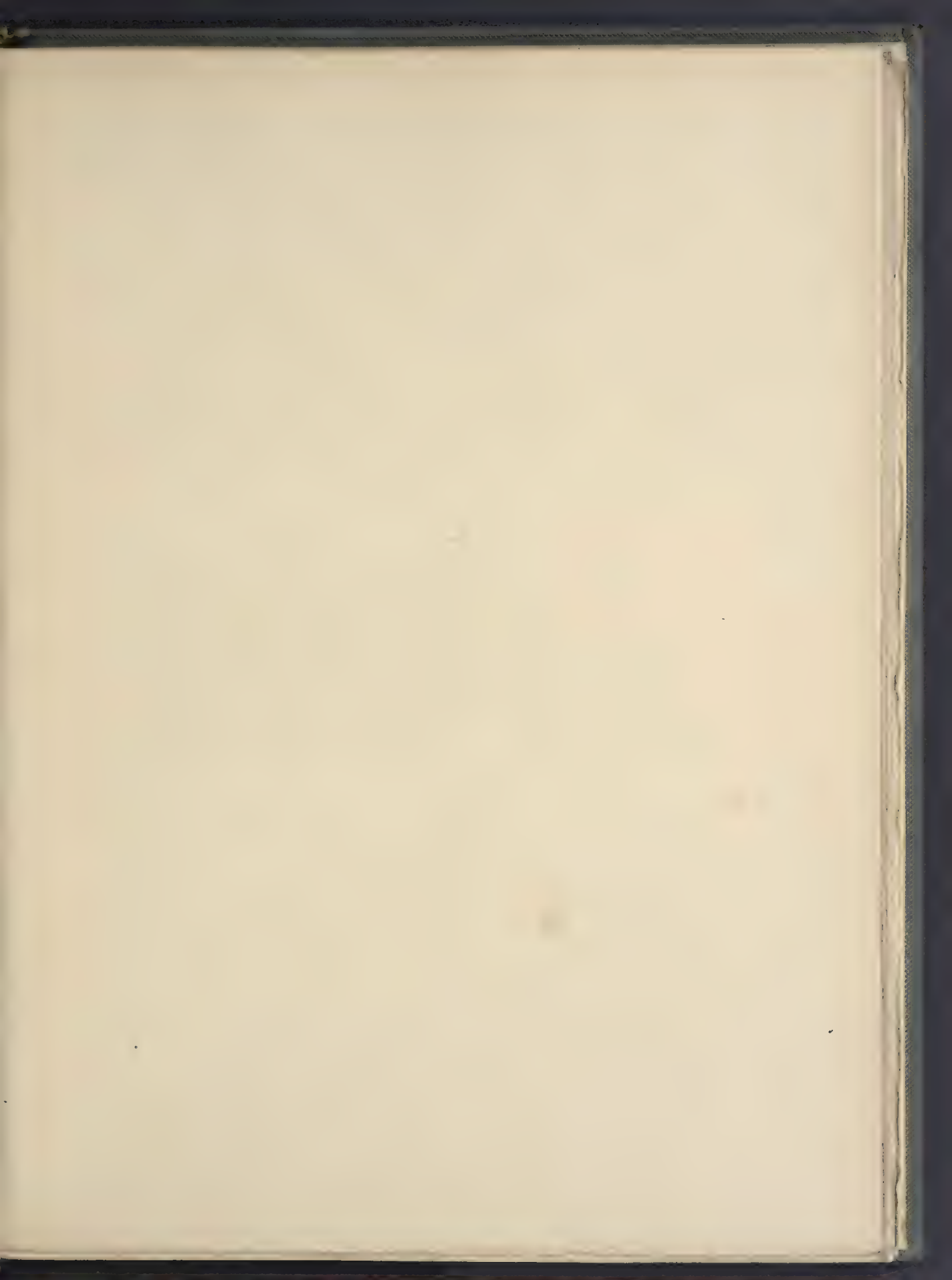
Section on Line A-B



Ground Plan

10 5 0 10 20 FEET

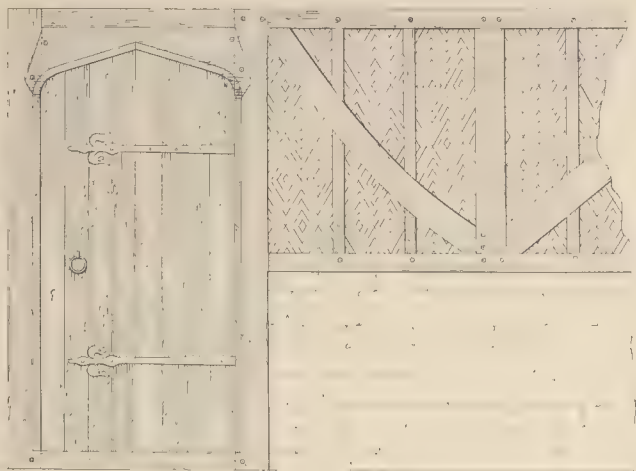
J. CLARKE ARCHT



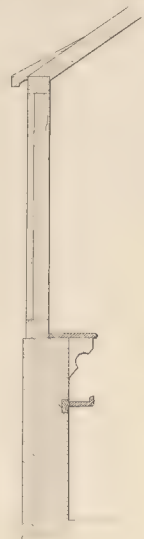




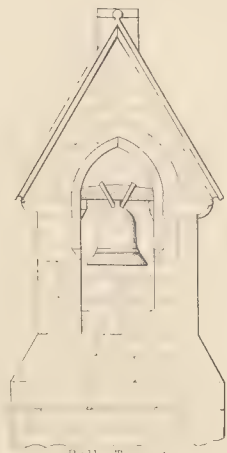
SCHOOLS AND MASTERS HOUSE, BRABOURNE, KENT.



Details of Oak Frame  
and Wall



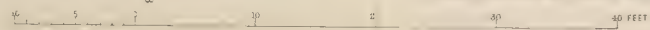
Section B



Bell Turret  
75m Scale



South Elevation of School and Masters House



J. CLARKE, ARCHITECT



### BOREHAM—ESSEX.

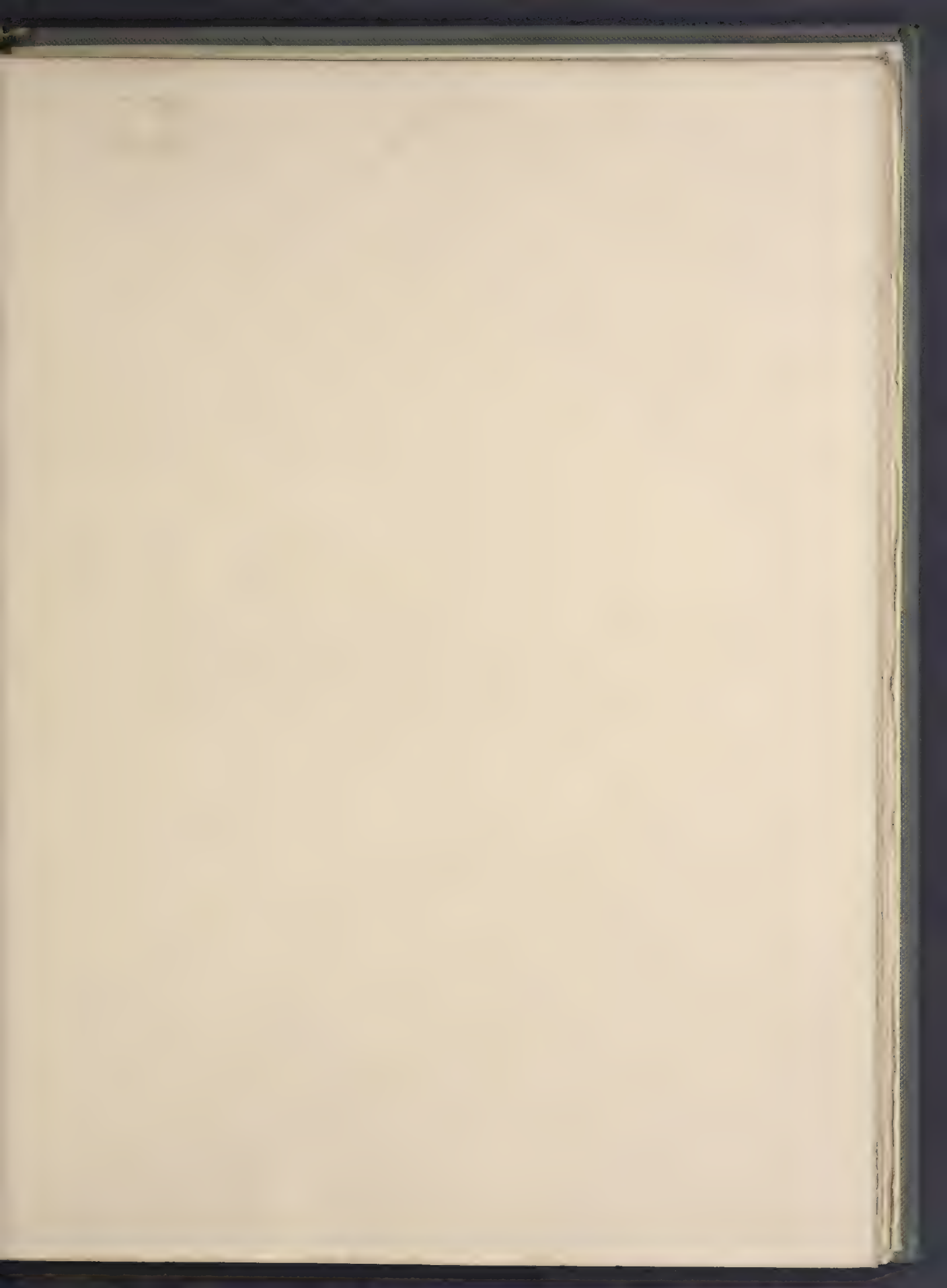
Boreham lies to the east of Chelmsford, and had been, till the coming of the late Vicar, very much neglected. He, however, by most praiseworthy efforts, raised means for carrying out the present schools, and which he saw, with great pleasure, completed before he was appointed to a more extensive parish.

They are built entirely of brick; the mouldings of the windows, doorways, &c., being of this material, made and burnt in the parish: the walls are checquered, and pointed in blue mortar. The plan comprises one room, intended to be parted by a curtain; the roof is open and stained. The two porches, which are constructed of timber framing, covered with oak slabs, tongued, to keep out the wet, serve as separate entrances; whilst, at the sides, pegs and shelves are arranged to receive the children's caps and bonnets.

The Master's house is small, but contains the usual accommodations, with the addition of a small pantry. The buildings are well drained and ventilated.

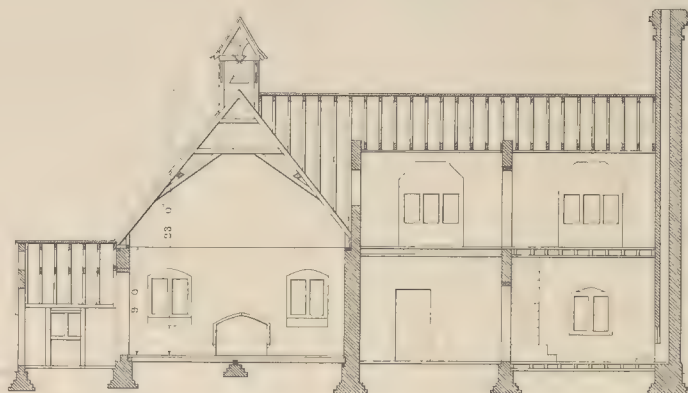
The cost of these schools was between £500 and £600; and aid was afforded by Public Grants, in addition to that of the Diocesan Board.



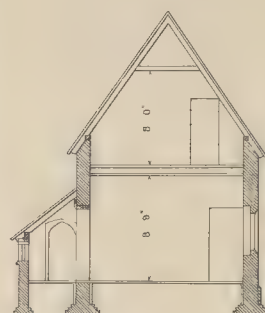




SCHOOLS AND MASTERS HOUSE, BOREHAM, ESSEX.



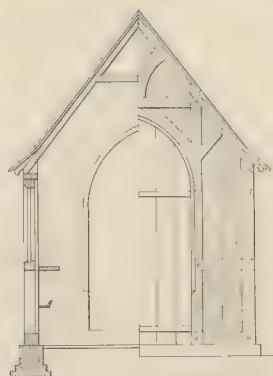
Section thro' School Room and Masters' House  
on Line A.A.



Section thro' Masters' House  
on Line B.B.

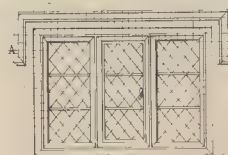


Perspective View.



Section. Elevation  
Porch 1/4 in Scale

Section  
at A.  
3/4 Scale



Details of Window.  
1/4 in Scale

Framing of Porch  
1/2 in Scale



Side of School and Front of Masters' House

0 10 20 30 40 50 60 70 80 FEET

J. CLARKE ARCHT. DESG.

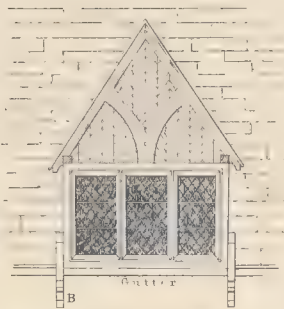




SCHOOLS AND MASTERS HOUSE  
BOREHAM, ESSEX



Side Elevation

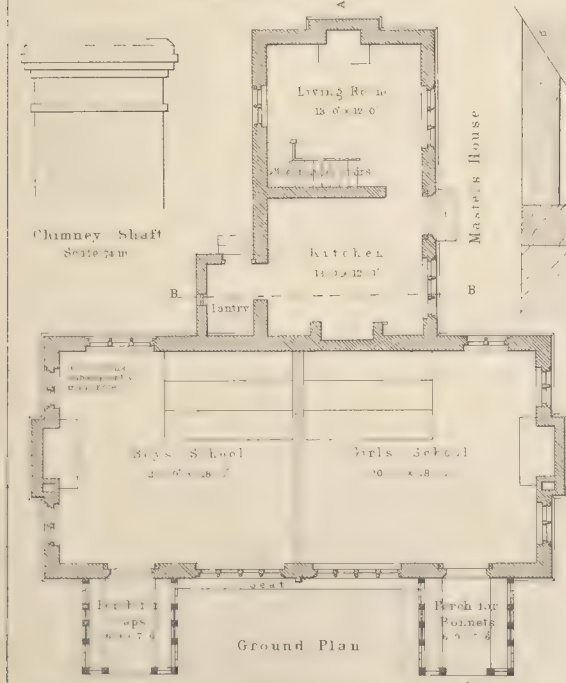


Details of Dormer  
Scale 1/4 in.

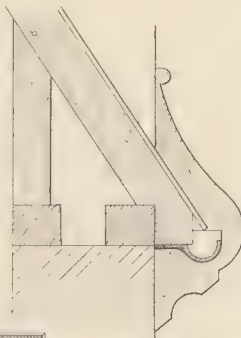


Elevation towards Road

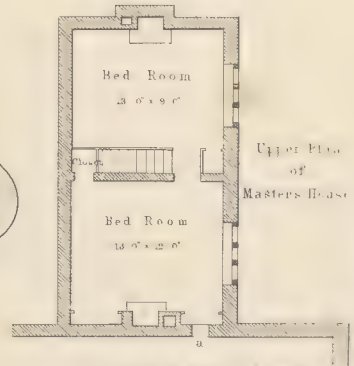
Back Elevation



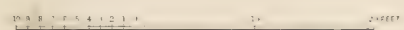
Ground Plan



Detail at B  
Scale 1/4 in.



Upper Plan of Masters House



J. C. ARDEN, ARCHT.





## FOXEARTH—ESSEX.

Foxearth is a very pretty Village in Essex, about four miles from Sudbury. Till within the last few years it had fallen into decay, but the present Rector, on his succeeding to the living, at once restored the church in a costly and appropriate manner, and then proceeded to erect new schools; these great improvements have been the means of causing such a change in the village, that in its present neat and cheerful appearance it can scarcely be recognized as the same place.

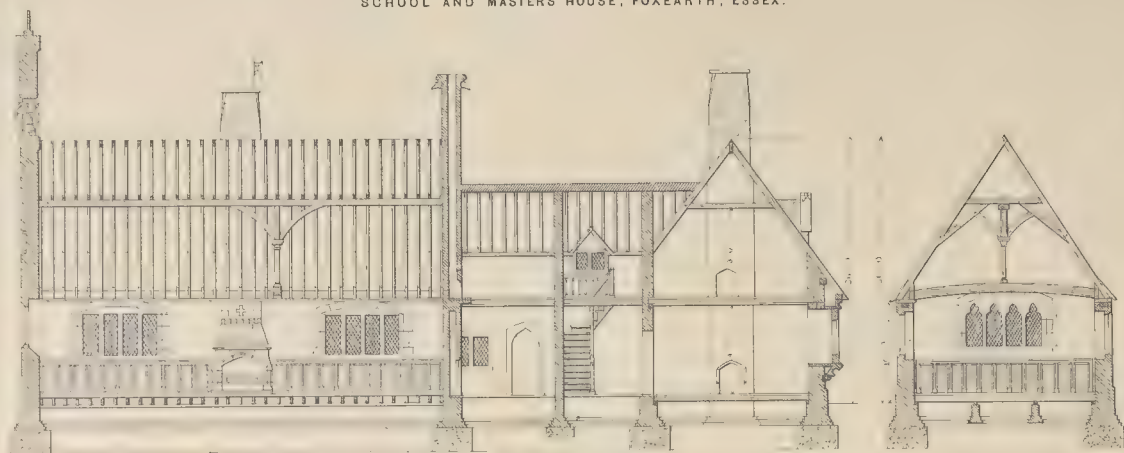
The schools occupy the site of the village alehouse, which the Rector purchased, with the double object of appropriating it to the beneficial purposes of education, as well as removing the source of idleness and intemperance. They are constructed in the most substantial and durable manner. The walls, from the nature of the site, are built on a thick bed of concrete, and are constructed of flint, lined with brick; the outer facing being of the pebble flint of the country, set whole—the joints raked out, so as to show no pointing. This makes an excellent face, but it is necessary to employ the workpeople of the locality, who are accustomed to the work. The dressings, externally, are of Bath stone, and inside, of Caen, worked in a superior manner. The detail is richer, and the whole building partakes more of mediæval character and composition than can be usually adopted. The roof over the school is taken from one of the few good examples of domestic buildings which we have remaining of the fifteenth century; the timbers are exposed, and stained, and as well as the other roofs, covered with old tiles, with a ridge cresting. The school-room is panelled in oak round the walls, and has a fire-place of stone, projecting boldly into the room. Leading from the school-room to the class-room is an open corridor, communicating with the house, which has more accommodation than usual, being intended for the occasional residence of the Curate. The outer framing is of oak, filled in with parget. An oven is attached to the kitchen,—a desirable convenience in rural districts, and, in some cases, might advantageously be added, to combine industrial training with educational teaching, which, to some extent, is carried out in these schools; the children being instructed in the duties of everyday life, to fit them the better for the positions they may be expected hereafter to fulfil.

The cost of these schools, which were erected entirely at the expense of the Rector, without any assistance from Public Grants, was considerable,—the amount, exclusive of the purchase of the site, being more than £900.





SCHOOL AND MASTER'S HOUSE, FOXEARTH, ESSEX.

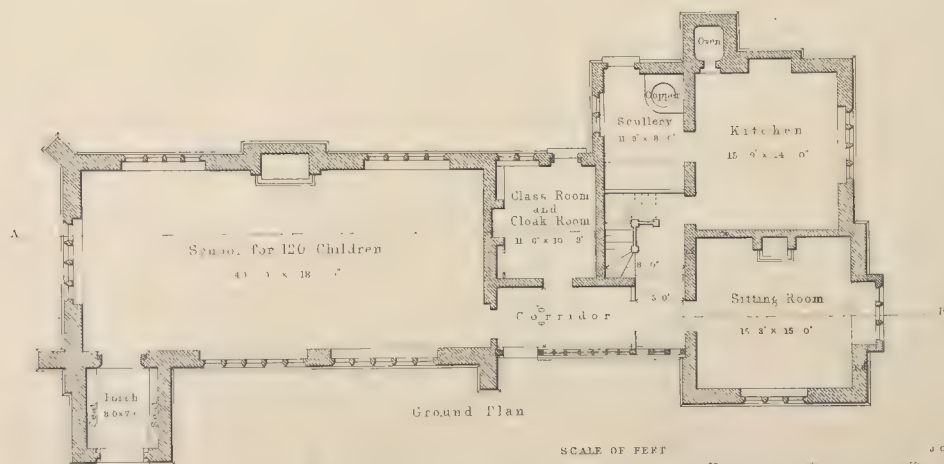


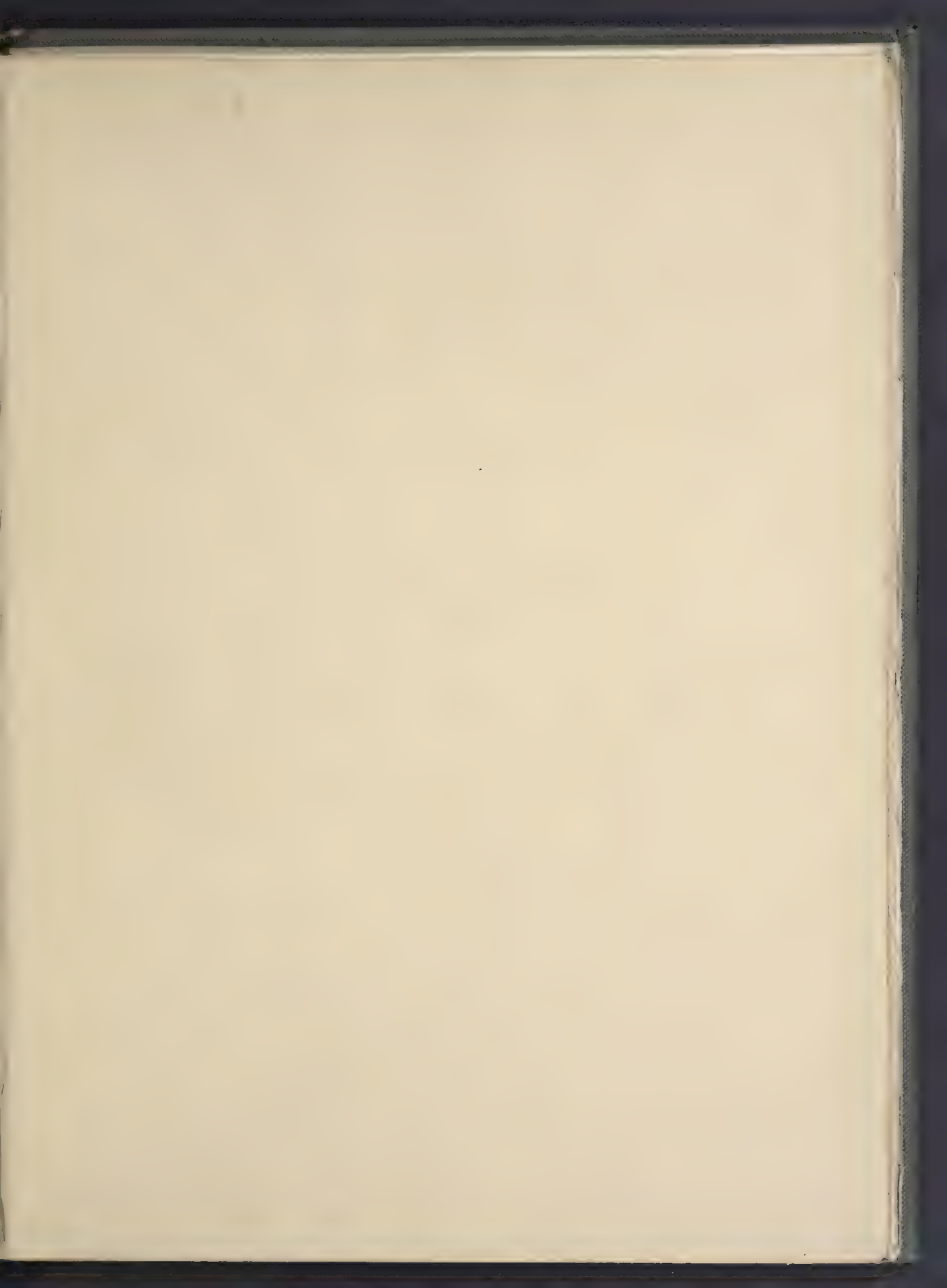
Section thro' School & Master's House on line A B

Transverse Section of School



Perspective View



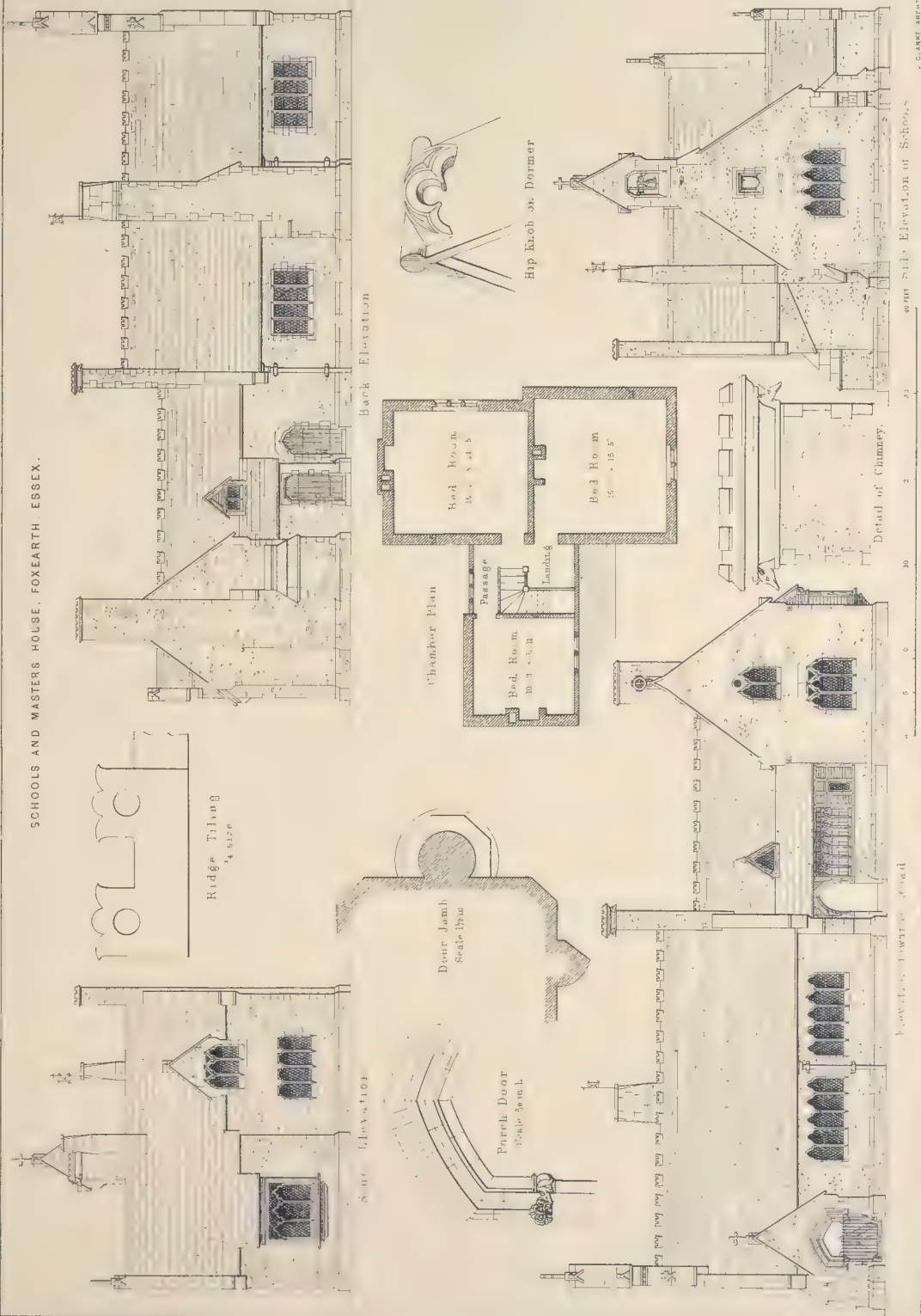






SCHOOLS AND MASTERS HOUSE, FOXEARTH, ESSEX.

Pl. 54



J.P. Gibbes.

Printed by Bell 156 Fleet St May 1852

CLARET ARCHT.



#### HATFIELD-BISHOPS—HERTFORDSHIRE.

Hatfield-Bishops is one of the numerous little towns abounding in Hertfordshire, containing about 2,000 inhabitants, but very poor. The Marquis of Salisbury owns the greater portion of the property in the neighbourhood; and, on the destruction of the then existing schools by the Great Northern Railway, his Lordship presented a site, with the materials from some old buildings adjoining, for a new building. A subscription was raised by the Rector, to increase the size of the Girls' school, and to add an Infant's school, together with a house for the Mistress. The plan shews this arrangement; and the whole was carried out with great simplicity, having regard to economy. The old and new materials used up together give a sober and quiet character to the whole; and, from being built on rising ground, a good view is obtained. The materials are brick, with but very little stonework, excepting to the bell-cot; the roofs are covered with old tiles, and great care was taken in the ventilation.

The contract for these schools, exclusive of the old materials, was between £500 and £600. Grants were made by the Committee of Council, the National Society, and the Diocesan Board of Education.



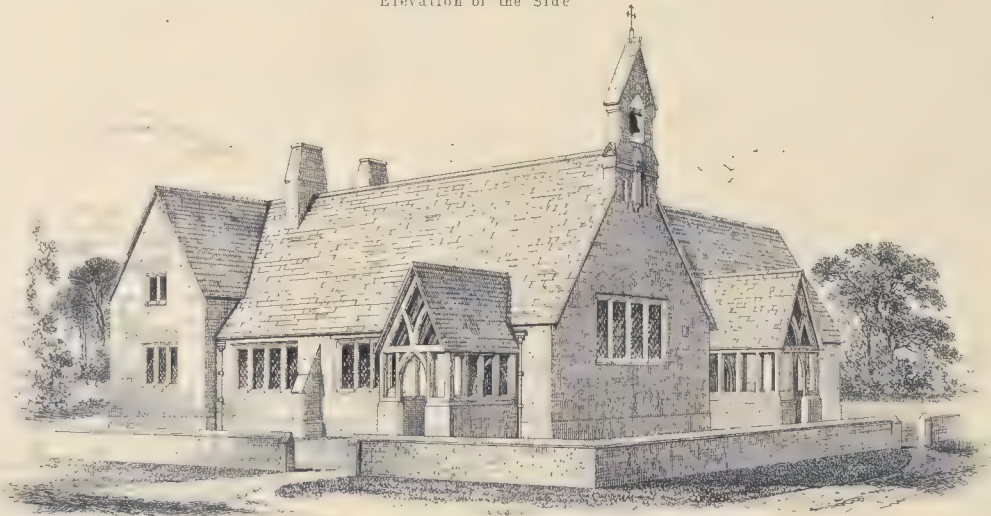




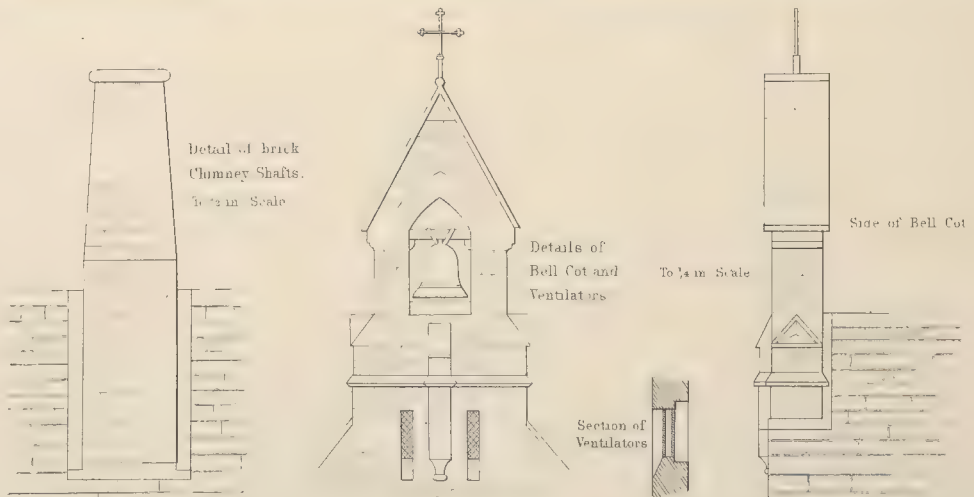
SCHOOLS AND MASTERS HOUSE, HATFIELD HERTS.



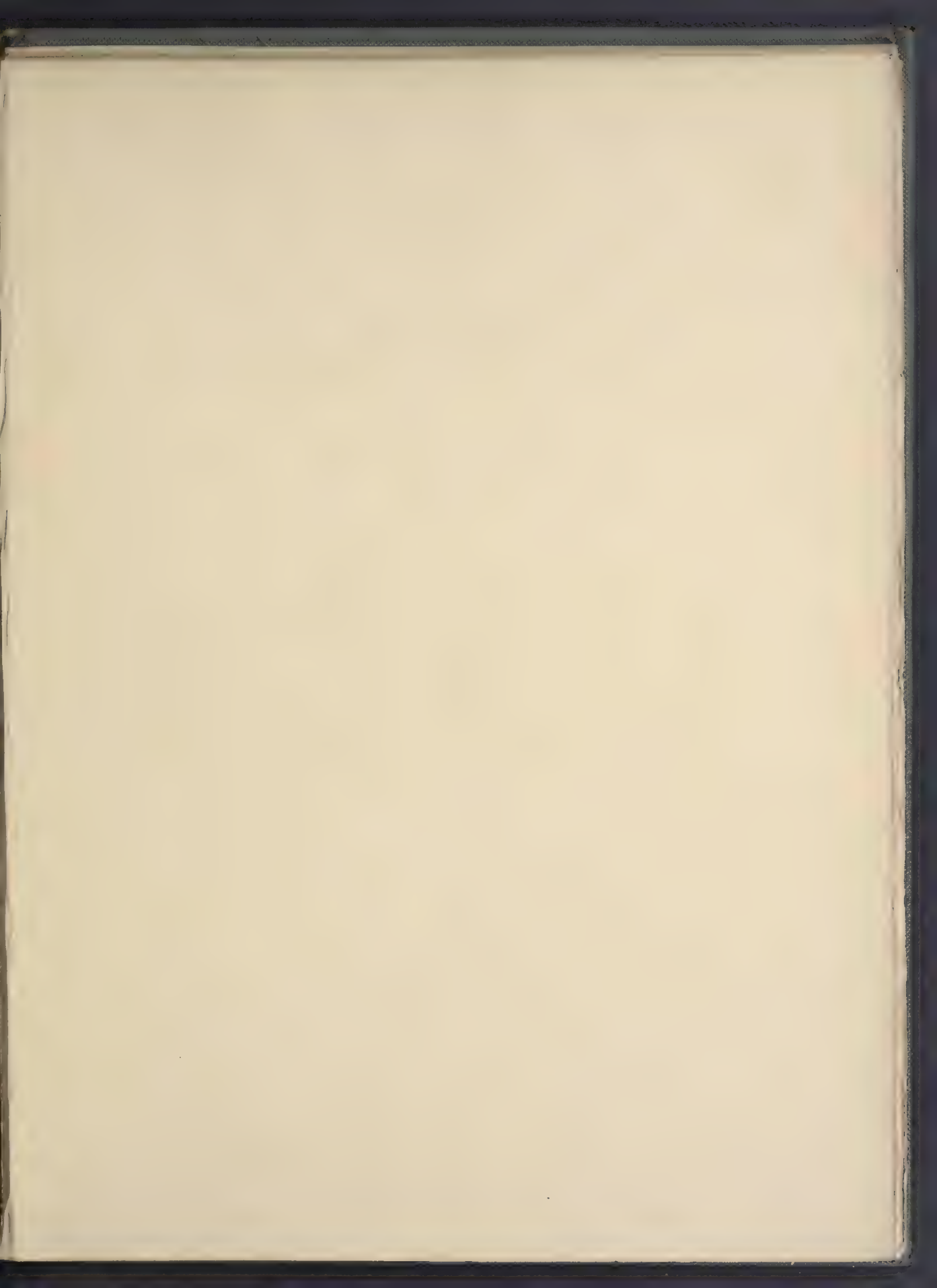
Elevation of the Side



View of School.

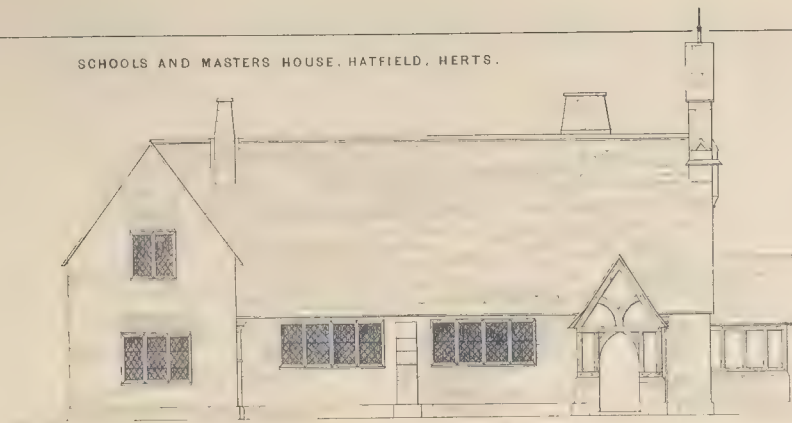


J. CLARKE ARCHT

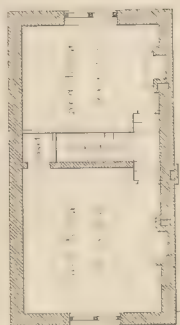




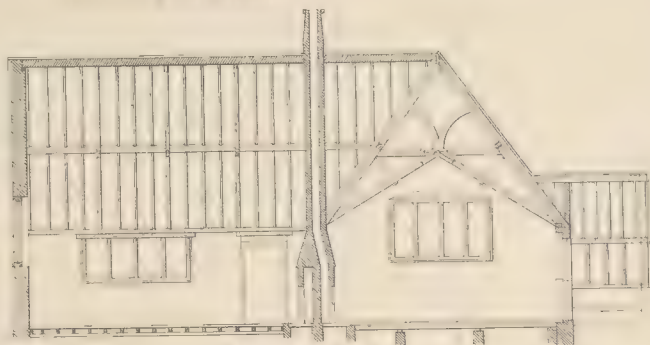
SCHOOLS AND MASTERS HOUSE, HATFIELD, HERTS.



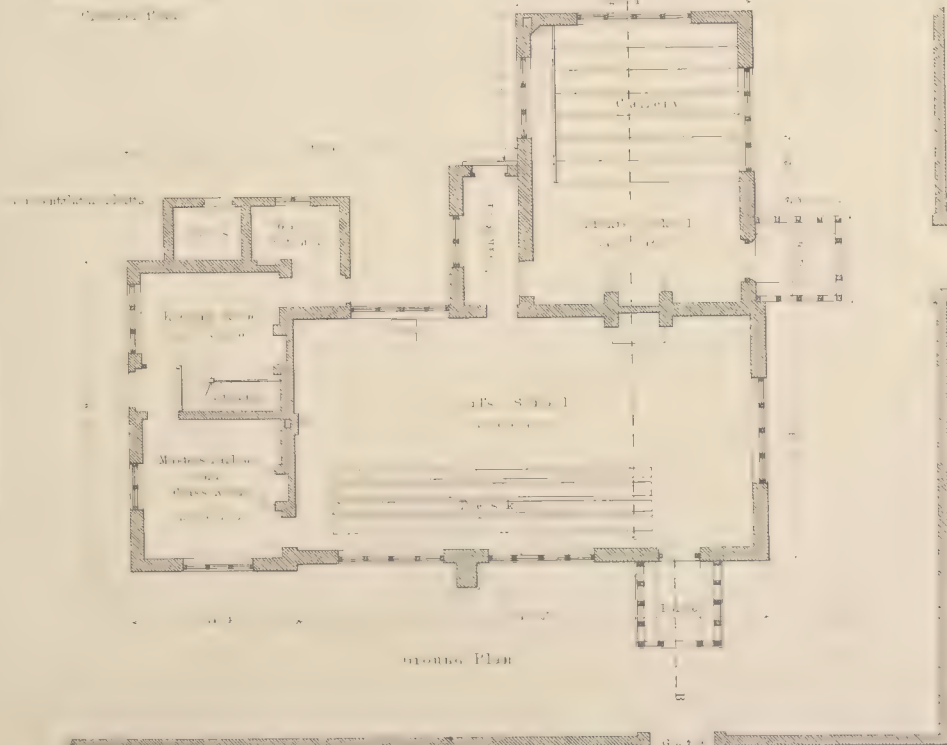
Elevation towards the road



Plan of the Chapel



Section on line A B



Ground Plan





### LEIGH—ESSEX.

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Leigh is a Village near Southend, of considerable extent. The inhabitants are fishermen, chiefly employed in the oyster and shell-fish fisheries, for the London markets. Like similar places of an isolated character, it retains many peculiarities; and only of late years has there been a resident Incumbent.

The houses are built on a narrow slip of land close to the water—the church being on the crest of the cliff above. The schools occupy the slope of the hill, and are built in the form of a quadrangle, facing the west. The upper side forms the Girls' school; the Infants are in the centre; and the lower side is appropriated to the Boys; whilst, in the upper angle, between the Girls' and the Infants' schools, is the Curate's house; and, in the lower angle, between the Infants' and Boys' schools, the Master's house; each residence being connected with the central building by an open cloister, open to the sea view, with a chamber above. From the steep ascent of the site, and its position so much above the level of the shore, it commands a most prominent view; and the gradations necessary to meet the levels afford the most pleasing variety in the broken attire of the buildings. The separate offices are placed at the rear of each school, and assist in carrying out the complete arrangement of the whole.

The rag-stone used in the door and window dressings, as well as other parts, was procured from the opposite coast of Kent. Very little stone of any other kind was employed, excepting for the copings, bell-cot, and in some of the ornamental details;—the jambs, splays, &c., are lined with hassock. All the roofs are open-framed, with collars and braces; and covered with old tiles and crested ridges: the framing of the corridors is seen—the upper part being filled in with pargetting.

The Curate's house, which commands a fine marine view, is planned and fitted with every attention to comfort and convenience; whilst the Master's house, though smaller in extent, is so arranged as to possess every necessary requisite.

LEIGH—ESSEX.

This building can hardly be looked on as belonging to the ordinary class of village schools; it forms, in fact, a parochial establishment, based on a collegiate system; the working of which, from the labor and self-denial of the late Rector, now the Bishop of Moray and Ross—who laid out, from his private resources, more than £2000 on the work—has fully shown how, under similar circumstances, the poor can be brought to regard, in a high degree, the blessings and privileges of the Church.



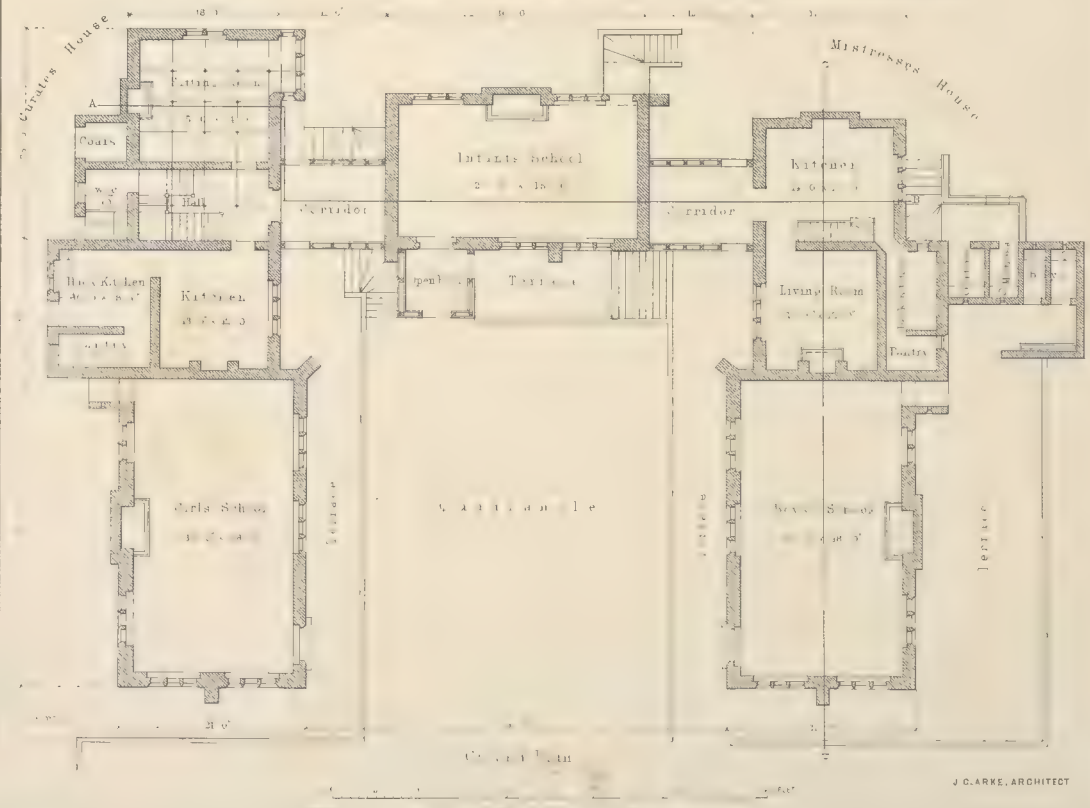
CHURCH SCHOOLS AT LEICH, ESSEX.



Side Elevation



Front Elevation



J. D. CARKE, ARCHITECT



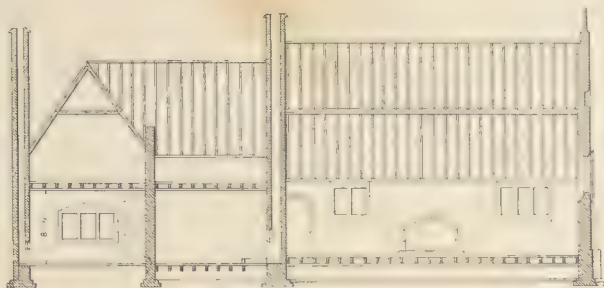




CHURCH SCHOOLS AT LEIGH, ESSEX.



Section of A B



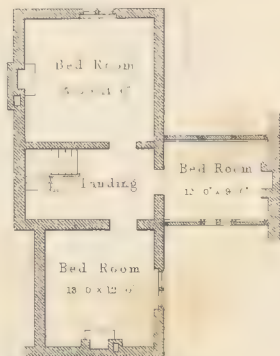
Section of C D



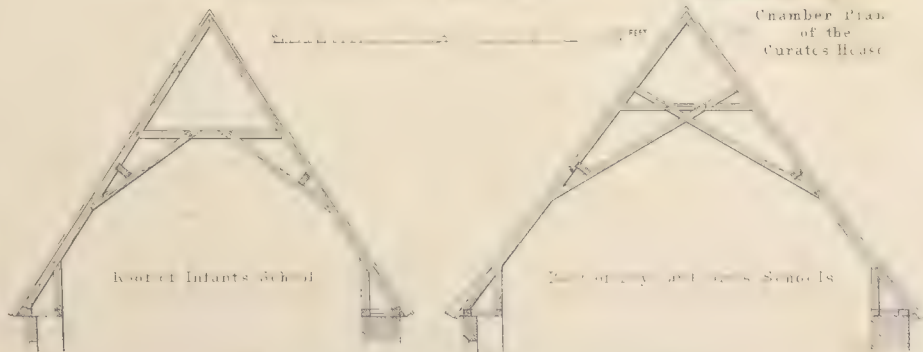
Chamber Plan of Mistress's House



Elevation, inner side of Quadrangle



Chamber Plan of the Curate's House



Roof of Infants School

Roof of Curate's House

Scale to Roofs



## ADDENDA

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"MEMORANDUM RESPECTING THE ORGANIZATION OF SCHOOLS IN PARALLEL GROUPS OF BENCHES AND DESKS, ISSUED BY THE COMMITTEE OF COUNCIL ON EDUCATION."

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### PRELIMINARY REMARKS.

Before a schoolroom is planned,—*and the observation applies equally to alterations in the internal fittings of an existing schoolroom*,—the number of children who are likely to occupy it; the number of classes into which they ought to be grouped; whether the school should be "mixed," or the boys and girls should be in different rooms; should be carefully considered, in order that the arrangements of the school may be designed accordingly.

A.—Every class, when in operation, requires a separate teacher, be it only a monitor acting for the hour. Without some such provision it is impossible to keep all the children in a school actively employed at the same time.

The apprenticeship of pupil teachers, therefore, is merely an improved method of meeting what is, under any circumstances, a necessity of the case; and, where such assistants are maintained at the public expense, it becomes of increased importance to furnish them with all the mechanical appliances that have been found, by experience, to be the best calculated to give effect to their services.

B.—The main end to be attained is the concentration of the attention of the teacher upon his own separate class, and of the class upon its teacher, to the exclusion of distracting sounds and objects, and without obstruction to the head master's power of superintending the whole of the classes and their teachers. This concentration would



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be effected the most completely if each teacher held his class in a separate room; but such an arrangement would be inconsistent with a proper superintendence, and would be open to other objections. The common schoolroom should, therefore, be fitted to realize, as nearly as may be, the combined advantages of isolation and of superintendence, without destroying its use for such purposes as may require a large apartment. The best shape is an oblong, about eighteen feet in width. Groups of desks are arranged along one of the walls. Each group is divided from the adjacent group or groups by an alley, in which a light curtain can be drawn forward or back. Each class, when seated in a group of desks, is thus isolated, on its sides, from the rest of the school. The head master, seated at his desk, placed against the opposite wall, or standing in front of any one of the classes, can easily superintend the school; while the separate teacher of each class stands in front of it, where the vacant floor allows him to place his easel for the suspension of diagrams and the use of the black board, or to draw out the children occasionally from their desks, and to instruct them standing, for the sake of relief, by a change in position. The seats at the desks *and* the vacant floor in front of each group are *both needed*, and should therefore *be allowed for* in calculating the space requisite for each class.

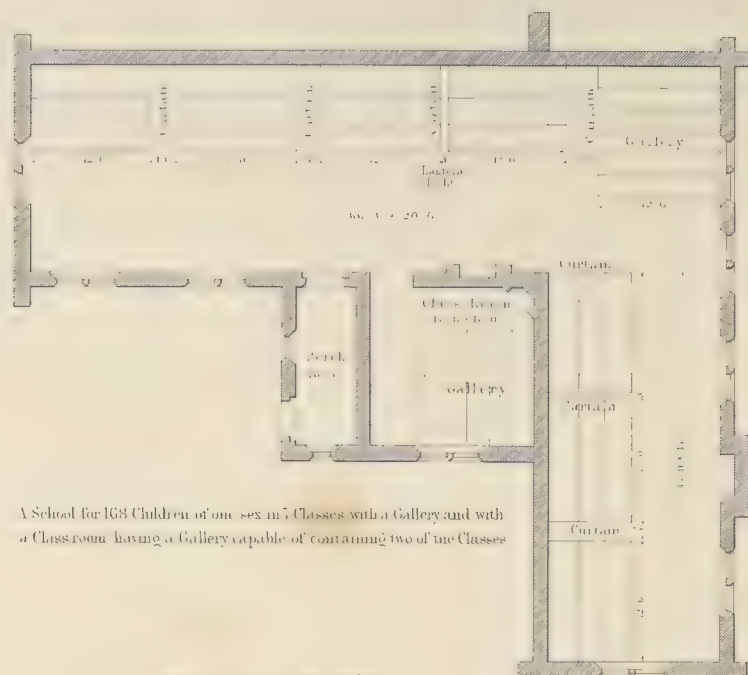
C.—By drawing back the curtain between two groups of desks, the principal teacher can combine two classes into one for the purpose of a gallery lesson; or a gallery (doubling the depths of rows) may be substituted for one of the groups. For simultaneous instruction, such a gallery is better than the combination of two groups by the withdrawal of the intermediate curtain; because the combined width of the two groups is greater than will allow the teacher to command, at a glance, all the children sitting in the same line. It is advisable, therefore, always to provide a gallery.

The drawings annexed\* show the best internal dimensions of schoolrooms, and the best mode of fitting them up,—the doors and windows being placed accordingly. The combination of such rooms, with others of the same kind, with teachers' residences, and with the remainder of the school premises, as well as the elevations which may thereby be obtained, depending, as they always must, upon local circumstances, are not intended to be here shown.

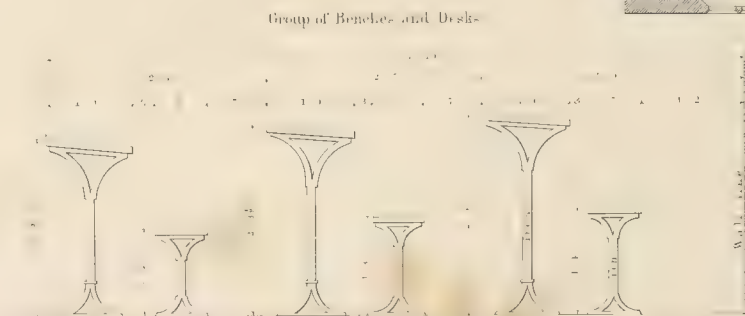
The Committee of Council do not recommend that the benches and desks should be immovably fixed to the floor in any schools. They ought to be so constructed as to

\* See Plates 26 & 27.

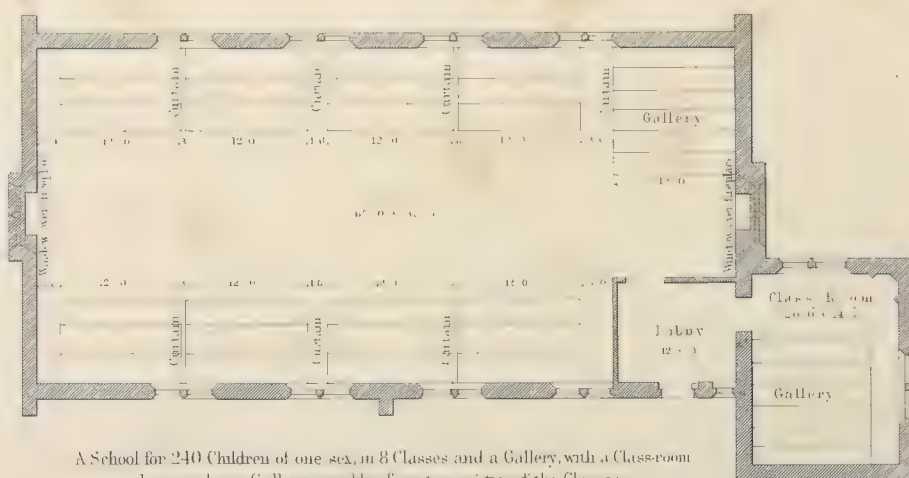




A School for 168 Children of one sex in 7 Classes with a Gallery and with a Class room having a Gallery capable of containing two of the Classes



Group of Benches and Desks



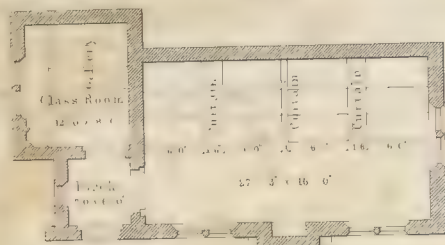
A School for 240 Children of one sex, in 8 Classes and a Gallery, with a Class-room having also a Gallery capable of containing two of the Classes



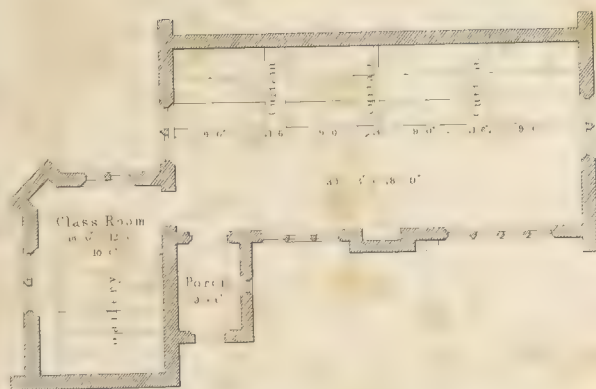
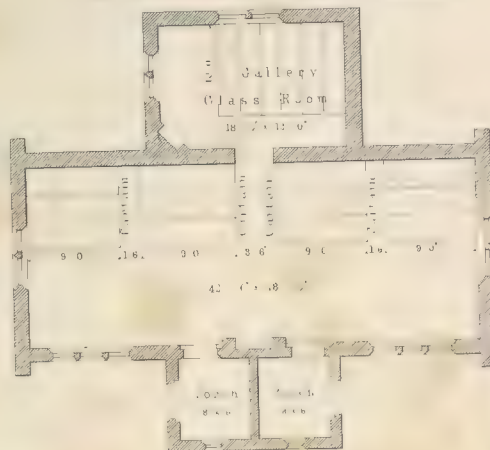




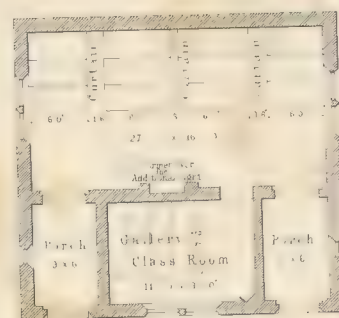
A School for 48 Children of one sex, in 4 Classes, with a Class room having a Gallery capable of containing two of the Classes



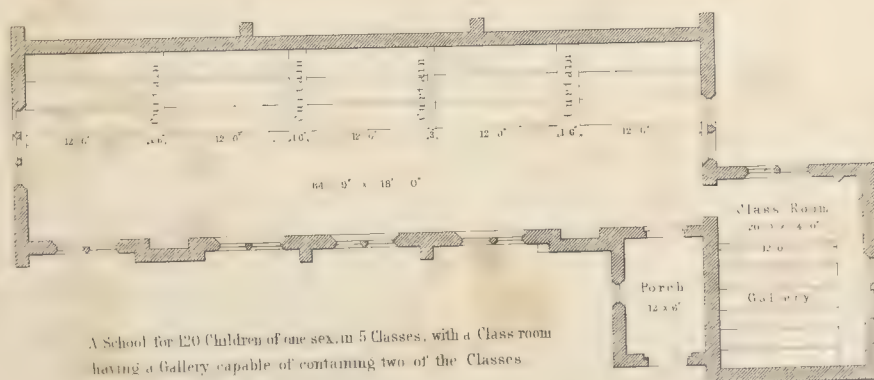
A School for 72 Boys and Girls, in 4 Classes; with a Class room having a Gallery capable of containing two of the Classes.



A School for 72 Children of one sex, in 4 Classes, with a Class room having a Gallery capable of containing two of the Classes.



A School for 48 Boys and Girls, in 4 Classes; with a Class-room having a Gallery capable of containing two of the Classes



A School for 120 Children of one sex, in 5 Classes, with a Class room having a Gallery capable of containing two of the Classes



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admit of being readily removed when necessary, but not so as to be easily pushed out of place by accident, or to be shaken by the movements of the children when seated at them.

The reasons of the following rules will be readily inferred from these preliminary explanations.

---

1. In planning a schoolroom, if it be not more than 18 feet in width, about 8 or 9 square feet will be sufficient for each child in actual attendance.\* If the width be greater, there must be a proportionate increase of area allotted to each child.

2. A school not receiving infants should, generally, be divided into at least four classes. (*The varying capacities of children, between seven and thirteen years old, will be found to require, at least, thus much subdivision*).

3. Parallel benches and desks, graduated according to the ages of the children, should be provided for all the scholars in actual attendance (*see Preliminary Remarks, B.*); and therefore a schoolroom should contain, at least, four groups of parallel benches and desks. (*See Rule 2.*)

4. A group should not contain more than three rows of benches and desks (*otherwise the distance of the last row is too great for the teacher to see the children's slates, and he must also raise his voice to a pitch which is exhausting to himself and adds inconveniently to the general noise*).

5. As a general rule, no group of benches and desks should accommodate more than twenty-four children, *i. e.*, eight children in each of the three rows of the group, (*otherwise the width is too great. See Preliminary Remarks, C.*)

6. The proper lengths are 7 feet 6 inches for five children in a row; 9 feet for six in a row; 10 feet 6 inches for seven in a row; 12 feet for eight in a row; *i. e.*, 18 inches for each child.

7. Each group of desks must be separated from the contiguous group, either by an alley for the passage of the children, or by a space sufficient for drawing and withdrawing the curtains.

\* This does not infer that the Committee of Council have altered their mode of making grants on the original scale of square feet to each child or infant named in their previous minutes.

ADDENDA.

It will be sufficient to provide an alley for the passage of the children *at one end only* of each group. At the other end a space of three\* inches will suffice for drawing and withdrawing the curtains.

[Alleys intended for the passage of children must not be less than 18 inches wide in the smallest school, and need not be more than 2 feet wide in any school, unless where a door or fire-place requires a greater interval.]

8. The best width for a schoolroom, intended to accommodate any number of children between 48 and 144, is 17 or 18 feet. This gives sufficient space for each group of benches and desks to be ranged (with its depth of three rows) along one wall, for the teachers to stand at a proper distance from their classes, and for the classes to be drawn out, when necessary, in front of the desks around the master or pupil teachers. (*No additional accommodation being gained by greater width in the room, the cost of such an increase in the dimensions is thrown away.*)†

9. Where the number of children to be accommodated is too great for them to be arranged in five, or at most six, groups, an additional schoolroom should be built, and placed under the charge of an additional schoolmaster, who may, however, be subordinate to the head master. Where this arrangement can be accomplished, the schoolroom should not be less than 32 feet wide, and the groups should be arranged along both sides of the room,—the children in all cases facing the centre. (*But such an arrangement is very inferior to that of the single row along one wall. The opposite classes see each other, and their several teachers have to stand too close together. See Preliminary Remarks, B.*)

10. A curtain, capable of being readily drawn and withdrawn, should separate the several groups; but not so as, when drawn, to project into the room more than 4 inches in front of the foremost desk.

11. If the schoolroom be lighted from above, which is the best possible mode, great care should be taken to prevent the skylights from leaking, and to provide channels for the water which the condensation of the children's breath will deposit on the inside of the glass.‡

\* This does not seem enough,—six inches is necessary.

† The Committee of Council do not seem to adhere to this as a strict rule.

‡ In practice, it will be found skylights are not good, and should only be adopted, if at all, as Dormers; the vertical face alone being glazed, and that from the children.



ADDENDA.

12. All sashes, both upper and lower, should be hung; and all windows, whether in the roof or elsewhere, should be made to open.

13. It is better to have a few large and well-placed windows than many small ones.

14. It is important to provide that the faces of the children and teachers, and also the black boards and diagrams, should be placed in a full clear light.

15. If the schoolroom be not lighted from above, there should be windows, if possible, at each end and on one side of the room. The windows should be carried up as high as possible; and those which are placed at the backs of the children (an arrangement which should be avoided as far as possible) should not come down within 5 feet 6 inches, or at least 5 feet, from the floor.

16. When the benches and desks are arranged on both sides of the room, it should be lighted from above, or there should be, if possible, windows in *each* of the side walls.

17. Except when a schoolroom is very broad, there should be no fireplace in the centre of an end wall.

[A good place for a fireplace is under a window.]\*

18. The desks should be either quite flat or *very slightly* inclined. The objections to the inclined desk are, that pencils, pens, &c., are constantly slipping from it, and that it cannot be conveniently used as a table. The objection to the flat desk is, that it obliges the children to stoop. A raised ledge in front of a desk interferes with the arm in writing.†

19. A large gallery for the simultaneous instruction of two or more classes, without desks, may advantageously be provided in a classroom or at one end of the schoolroom. Such a gallery may be better placed along than across, the end of the schoolroom, for the reasons stated in the Preliminary Remarks, B.

20. No such gallery, nor any gallery in an infant schoolroom, should be placed in front of a window, unless it be very high up above the heads of the children when they stand on the top row of the gallery.

\* This must depend very much on circumstances.

† It will be found the sloping desk is most natural, and more generally used.



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21. No infant gallery should hold more than 80 or 90 infants.
22. An infant school should (besides a large gallery) have a small group of benches and desks for the occasional use of the elder infants.
23. The alleys leading to a gallery should be at its sides, not in its centre. (*See Rules 5 and 6.*)
24. Great care should be taken that the valves which admit the fresh air into the schoolroom should be placed so as not to create draft where the teachers and children sit.\*
25. An easel and a black board should be provided for each class, and a larger black board for the gallery.
26. The dimensions shown in the drawings annexed to this Memorandum are adapted to children of from eleven to twelve years of age. *It is very important that these dimensions should be graduated to suit the sizes of the elder and younger children in a school."*

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The foregoing Memorandum, which may be looked on as the result of past experience, was issued in the early part of the present year, and is given entire, with only such slight alterations as were necessary. It will be found to contain much useful information in the construction of Schools generally.

The annexed Plates, 26 & 27, contain almost all the Plans given by the Committee of Council in the foregoing Memorandum, with some slight alterations.—J. C.

\* The common valvular gratings introduced in the flooring are very objectionable; and the ventilation under the floors should not have a direct current.

TO BE COMMENCED ON THE FIRST OF OCTOBER, AND CONTINUED IN MONTHLY NUMBERS,

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## DETAILS OF GOTHIC ARCHITECTURE,

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FROM EXISTING EXAMPLES,

BY JAMES K. COLLING,

Architect,

AUTHOR OF "GOTHIC ORNAMENTS," &c.



HE Author of the "GOTHIC ORNAMENTS," having received such cordial approbation for the manner in which he has carried out that work, has been encouraged to undertake the publication of another of somewhat similar character. The "DETAILS OF GOTHIC ARCHITECTURE," will consist of a series of plates, showing, in the most practical manner, on as large a scale as possible, such features of the remains of that Ecclesiastical Architecture (which is so justly the pride and admiration of our country) as have not been published or fully developed in other works of the same character. It is intended to illustrate, mostly, Moulded and Traceried Work, rather than the Foliated and Sculptured; so that the work will form a Companion to the "GOTHIC ORNAMENTS." The subjects will, generally, be taken from Parish Churches, rather than from Cathedrals or large Collegiate and Abbey Churches. The details will consist of Buttresses, Bell Gables, Belfries, Battlements and Parapets, Clerestories, Gable and other Crosses, Doors, Fonts and Covers, Letterna, Metal Work of every kind, large sections and developments of Mouldings, Piers and Arches, Pinnacles and Turrets, Porches, Pulpits, Roofs, Seating, Screens, Stalls, Windows, Wood Work, Church Fittings, and Church Furniture generally. It is not the author's intention to attempt to supersede or interfere with MESSRS. BRANDON'S excellent work, the "Analysis of Gothic Architecture," but rather to elucidate more particularly those features which have not been given, or are only partially developed in the Analysis; so that the possessor of the two works will have the most useful and comprehensive book of practical reference extant.

In the present day, when the taste for the Architecture of our forefathers is so steadily increasing, it becomes an object of the utmost importance that every feature and detail be clearly and carefully exemplified; not for the purpose of literally copying, but, that the true principles and genius of the style may be plainly set forth; that the taste may be conducted in the proper and onward direction, and, that "the movement of the day" may not be a retrograde one.

The periods elucidated will be the 12th, 13th, 14th, and 15th centuries; although, probably, a small portion only will be of the 12th century; but, it is intended to dwell at considerable length upon the 14th—the Decorated period; it being at once the most beautiful and the least illustrated.

The Plates will be executed by the same hands, and with the same accuracy and attention as have been bestowed upon those of the "Gothic Ornaments," and no pains will be spared to render them clear and effective.

The Work will be published in *Monthly Parts*, each containing *Five Plates*, price 2s. 6d.,—and will be completed in about *Thirty-Eight Parts*, comprising nearly *Two Hundred Plates*. It will also be issued in *Sections*, at 10s., each containing *Four Monthly Parts*,—forming, when complete, *Two Handsome Royal Quarto Volumes*.

The Author will be most happy to receive any suggestions of good and fitting examples, not generally known, from friends or Subscribers.—Any communication, relative to the work, addressed to his Residence, 20, Harrington-street North, Hampstead-road, will receive his early attention.

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